DOCUMENT RESUME

ED 263 108 SP 026 898

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TITLE Making Do in the Classroom: A Report on the Misassignment of Teachers.
INSTITUTION American Federation of Teachers, Washington, D.C.; Council for Basic Education, Washington, D.C.
REPORT NO ISBN-0-931989-27-2
PUB DATE 85
NOTE 40p.
PUB TYPE Reports - Research/Technical (143) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Educational Policy; Elementary Secondary Education; Faculty Workload; *State Standards; Teacher Certification; *Teacher Distribution; Teacher Effectiveness; *Teacher Qualifications

ABSTRACT

This report outlines the parameters within which teacher misassignment or out-of-field teaching can occur in the United States. Information is provided on results of a telephone survey collected between December 1984 and February 1985 to certification and accreditation officals in state education agencies in an attempt to discover the extent of teacher out-of-field assignments. Results from all 50 states are offered. Articles are included describing the practice of teacher misassignment in specific states and schools. Included in the discussion are reflections on the pressures leading administrators to misassign staff, some of the results in the classrooms, and efforts to regulate and reform the practice. (JD)

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MAKING DO IN THE CLASSROOM: A REPORT ON THE MISASSIGNMENT OF TEACHERS

SP# 026898

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American Federation of Teachers, AFL/CIO

MAKING DO IN THE CLASSROOM: A REPORT ON THE MISASSIGNMENT OF TEACHERS

This report from the Council for Basic Education is published in cooperation with the American Federation of Teachers.
Virginia Robinson was Director of Research and principal author. Carol Pierce was Research Associate.

Council for Basic Education

Since its founding in 1956, the Council for Basic Education has grown into a nationwide association of parents, educators, policymakers, and other citizens who are committed to strengthening the teaching and learning of the liberal arts in elementary and secondary schools.

The Council believes that the paramount goal of schools should be children's learning in the basic disciplines: English (including reading and literature, writing and reasoning, and speaking and listening), mathematics, science, history, geography, government, foreign languages, and the arts. All students, regardless of background or vocational goals, can and should master the basic subjects to prepare for responsible citizenship, to earn a livelihood, and to develop the capacity for life-long learning.

From its headquarters in Washington, D.C., the staff of the Council offers nationwide informational services and professional development programs for teachers and administrators.

American Federation of Teachers

The American Federation of Teachers is an international AFL-CIO union made up primarily of elementary and secondary school teachers, college and university professors, and other public sector and professional employees.

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ISBN 0-931989-27-2

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Statement by A. Graham Down

Late in 1984 the Council for Basic Education undertook a survey of state policies on the assignment of teachers into classroom subjects for which they are not officially qualified by education, professional training, and certification. Our curiosity about this practice was aroused by press stories of state and local efforts to alleviate "spot" shortages of teachers; that is, shortages in particular locales, subjects, or grades. Such stories tend to dwell on mechanisms of supply and demand rather than on the disturbing implications for the quality of teaching and learning.

As you will see for yourself in the course of reading this report, Virginia Robinson, research director of this project, turns over rocks in a much-neglected garden. What comes to the eye is certainly not pretty, nor is it especially surprising. Except in very few states, teachers are routinely asked to perform instructional assignments for which they are ostensibly not qualified. The implications for morale, professionalism, pedagogy, subject knowledge, and student learning are dire, to say the least.

Moreover, this widespread practice is largely undocumented; states do not know the numbers of misassignments. it is not exaggeration to infer that what some educators call "out-of-field" teaching is out of control.

Ironically, there is a danger that new state mandates intended to strengthen student achievement in basic academic subjects—a goal of the Council for Basic Education—will instead lead to even more reliance on education's back door to the classroom. The spectre of teacher shortages must not be used as an excuse for an easy, but faulty solution, increased misassignment of teachers in subjects for which they lack appropriate qualifications.

CBE urges through public discussion of this issue and prompt action by state and local authorities to put only *qualified* teachers in America's classrooms.

A. Graham Down
Executive Director
Council for Basic Education

Statement by Albert Shanker

The assignment of teachers to teach subjects they have not been certified in is a betrayal of the meaning of education. The message it sends is that bureaucratic convenience takes precedence over academic standards and that the school's custodial role is more important than its intellectual mission. That is not a statement the American Federation of Teachers wants to support, nor should it be endorsed by anyone who values education.

The practice of assigning teachers to teach out-of-field is not new. James Bryant Conant wrote about it in 1963, and others have raised the issue in the ensuing years. Still, the misassignment of teachers has persisted and gone largely unnoticed and unremarked. Even during this recent wave of education reform, the issue received scant attention, as if there were no logical or ethical connection between demanding that teachers meet high standards and assigning them to teach the subjects for which they have been academically prepared.

Thanks, however, to the research and diligence of Virginia Robinson, education's "dirty little secret" is out. There are no culprits in this story. Indeed, the dirtiest aspect of the practice of misassigning teachers is that in most states it is completely legal. Armed on the one hand with often elaborate licensing and certification requirements to assure instructional competence, including in subject matter, states on the other hand routinely empower local school administrators to bypass these requirements. It is a cynical practice.

If the education community is to continue to stand before the public—and itself—professing a belief in high academic standards, examinations, the integrity of subject matter, in professionalism, then we ought also to deplore this miscarriage of education and press for an end to out-of-license teaching. It is the AFT's hope that the publication of this report will arouse the attention of the public and policymakers to this issue. The next step will be to review state laws and regulations, local practices, and union contracts for their roles in fostering the misassignment of teachers.

Unlike so many problems, the misassignment of teachers is neither complex nor intractable. We hope, then, that this will be the last time it is necessary to issue a report on a problem that shames us all.

Albert Shanker
President
American Federation of Teachers

Making Do In the Classroom

All states require that public school teachers be certified or licensed to teach. Certification is usually based on a teacher's completion of appropriate college courses; it is commonly cited as an assurance that teachers are competent and adequately trained for their classroom assignments.

Ideally, they all are. What happens in practice can be quite different. According to a survey conducted by the Council for Basic Education and published in collaboration with the American Federation of Teachers, the misassignment of teachers constitutes a scandal in the making for the entire profession.

Misassignments occur because many states grant local school administrators authority to assign certified teachers *outside* their fields of academic preparation under certain circumstances, and even specify that limited amounts of out-of-field teaching need not be reported as such.

Individuals originally certified in English may be assigned to teach science; a vocational education instructor may teach a social studies class.

Nationwide, thousands of teachers stand before thousands upon thousands of children, charged with instruction in disciplines not their own. And these are not peripheral subjects but English and math, history and science. The consequences for the nation's students, supposedly being educated in these basic subjects, are enormous.

The facts behind this scandal in the misassignment of teachers were discovered during a survey of all state departments of education to learn what regulations, if any, control out-of-field teaching, and what statistics, if any, the individual states have gathered to show the actual numbers of teachers in classes for which they have no preparation.

This report outlines the parameters within which out-of-field teaching *can* occur in the states. No one can say precisely to what extent such practice *does* occur, although there are many indications that, if anything, the misassignment of teachers is more common than the states' formal pronouncements would imply. *Only strict on-site school audits, however, would reveal accurate figures.*

The Absence of Excellence

While three-quarters of the states possess an explicit policy or regulation acknowleging that out-of-field teaching is pedagogically unsound, *few or none have reliable means for measuring its incidence within their own jurisdictions.*

Most states literally do not know how much out-of-field teaching goes on. Although states are legally responsible for certifying teachers, and all states maintain files on teachers' academic qualifications, and although every state has some requirement that schools report teacher assignments at the beginning of the year, we were commonly told that the state either makes no attempt to cross-check these data, or does not collate the data statewide.

Since many states do not know how well teacher assignments match with teacher preparation, *it is hardly surprising that rules or sanctions against misassignment are rarely enforced. The frequency of routine examinations of schools appears to be five years, on average, and state education officials concede that a school could misassign teachers undetected between reviews.*

Even when misassignments are noted and schools are required to correct them, penalties for noncompliance remain weak; in many states a school may continue in violation if it is "willing to take the demerits" on its accreditation. Many officials claim that state aid will be withheld where teachers are misassigned, but at the same time most admit that this has never happened.

What Is the Extent of the Problem?

The effect of misassignment on teachers and the teaching profession is speculative. It can be assumed that teachers would rather teach a subject they know than one they do not, but there is some evidence that teachers do not always know what subjects they are officially authorized to teach, and are therefore reluctant to resist misassignments.

On another level, it seems clear that most parents do not know that state laws or regulations permit assignment of teachers outside their fields of competence. In this case, inadequacy on the part of an out-of-field teacher will probably be ascribed to personal shortcomings or poor professional preparation; only the students may know that the teacher is improvising with unfamiliar material.

Half a dozen states permit out-of-field teaching without restriction, while in many others it exists either by loose regulation or by the ratification of long precedent.

Fifteen states limit misassignment only by a percentage of the school day or a certain number of periods in a teacher's schedule.

In Alabama, teachers may spend forty-nine percent of their time in areas in which they hold neither endorsements nor certificates.

Up to two classes a day in Maryland may be taught by instructors outside their certified areas.

The state of Massachusetts specifies that teachers may not teach more than 20 percent of their time out of the field of certification, but even this provision is not tightly monitored. For every teacher thus employed, the education of 50 or 60 children a day is affected.

More disturbing still are the countless legal exceptions to minimal regulation. In emergency situations, as defined by local authorities, teachers may be assigned as needed. Provisional certificates or waivers are widely available. *Most states in the nation permit exceptions in one form or another to standard certification.* How strictly these exceptions are limited varies widely.

Often, teachers thus assigned to classes for which they possess little or no academic background are required only to be "working toward" proper endorsement. Perversely, the mere teaching of the course may count as fulfilling this sole provision. Teachers thus become certified in a new field while lacking any formal training in it.

These emergency or provisional routes into the classroom also undermine the reform of teacher education programs. Myriad individuals moving into the system by circumventing academic requirements weaken the power of teacher education programs to heighten their own standards.

A Dilemma for the Profession

Several states have made an effort to measure the extent of out-of-field teaching in their schools. Most striking are the figures from Utah, which issues a general teaching certificate, though teachers are *not* required to teach subjects for which they are prepared. Because neither schools nor teachers are penalized for out-of-field assignments, the figures may be accurate and surely are suggestive. 82.1 percent of earth science, 28.3 percent of mathematics, and 25.1 percent of biology classes were the "major" assignments (that is, classes taught most often) of teachers lacking either a college major or minor in the subject.

Each year Virginia publishes a list of "unendorsed teaching assignments." Because school accreditation is adversely affected by misassigned teachers, the figures must be viewed with some skepticism. Even so, the information for 1983-84 is startling. 8.94 percent of English classes and 33.59 percent of earth science classes, for example were assigned to teachers uncertified in those subjects.

The dilemmas that can lead to teacher misassignment are sometimes acute in small rural schools. These schools wish to offer a broad curriculum, yet they face the natural limitations of a small staff. To offer certain courses those limitations must be stretched or ignored altogether. Few school boards or administrators have introduced a politically unpopular option: that when qualified teachers are unavailable, affected subjects simply will not be taught.

Yet out-of-field teaching is not limited to such schools, nor is it simply a matter of recent teacher shortages. Although science and math teachers are in short supply, the survey reveals that many English and humanities classes, for which there is no shortage, are conducted by teachers certified in other fields.

In some schools where lay-offs or reductions-in-force are based on seniority rather than on staffing needs, distortions in scheduling have occurred, forcing misassignment of some teachers. Nevertheless, it would be a mistake to single out seniority systems as an easy scapegoat for the long-established practice of misassigning teachers.

Underlying these circumstances lies a pernicious notion on the part of educators and much of the general public as well: that teachers are mere "facilitators" of learning; that they are secondary conduits of information already contained in textbooks. Once people have been trained as teachers "in general," this prejudice supposes, they have the ability to teach any subject at all.

The simple fact is, of course, that most worthwhile teaching beyond rudimentary facts and mechanical skills requires a broad perspective and a critically engaged brand of thinking. Teachers learning from a textbook even while instructing from it are trapped within the borders of the page.

Only those properly trained in specific fields, as well as liberally educated, have the perspective to establish larger contexts for learning, to step beyond the constraints of a textbook and engage students' imaginations.

Nowhere is this more true than in elementary education. Yet one other important fact brought to light by the survey is that, even in those states with a modicum of regulation for out-of-field teaching at the high school level, few restrictions apply to elementary or middle schools. Again, the assumption is that all teachers can deal successfully with introductory subjects. Yet as so much research has shown over the last thirty years, the single most important skill in elementary education—reading—demands the most considerable training for effective teachers.

The most damaging consequence of out-of-field assignment is its negative effect on the quality of teaching and the education students receive. A study of teacher assignment in one school district in Washington State found that these negative effects are felt most in the core curriculum of the school and in lower-track classes, where out-of-field teachers are most likely to be assigned.

Out-of-field assignment of teachers is accepted as a respectable administrative technique by school supervisors and generally acquiesced in by teachers. Few parents know it is happening, and for students it just is one more inscrutable feature of school life. Its contribution is that it oils the machinery of education, making it possible for schools to offer courses, cover classrooms, meet emergencies, and support activities that they would otherwise not be able to manage.

But unless subject-matter competence is inconsequential to successful teaching—a proposition embraced by some school administrators ("A good teacher can teach anything!") but implicitly denied by states when they require teachers to be certified in the first place—it must be assumed that out-of-field assignment downgrades the quality of instruction.

On a hopeful note, it should be pointed out that out-of-field assignment has one other important characteristic. It may be the only problem currently plaguing education which schools themselves could correct, alone, quickly, without cost, and probably with dramatic effect, simply by declining to avail themselves of the out-of-field options offered by their states.

As for the states, it may be time for legislatures and state boards to examine laws or regulations that not only permit out-of-field teaching but classify it officially as "in field," an Alice-in-Wonderland device that simultaneously encourages and disguises misassignment of teachers.

The findings of our survey pose a number of questions outside the scope of its inquiry that must be answered by responsible officials on the local, the state, and the national levels. They include:

- What *are* the actual numbers of teachers in schools who by choice or by assignment stand before students without appropriate education themselves?
- Is a need for flexibility on the part of school systems (say, to cover a low-demand course for which a fully certified teacher cannot be found) sufficient to outweigh compliance with certification standards?
- What is likely to be the effect of increased course requirements for graduation, or increased expectations of time spent on basic academic subjects in elementary schools, on certification requirements?

Further, beyond these questions, the survey offers a challenge to educators, policymakers, parents, and other citizens to insure that all teachers be properly certified. For successful teaching combines academic knowledge and classroom skills. Teachers cannot be expected to fulfill their tasks simply by staying a chapter or two ahead of their students, nor can their students be expected to learn.

The Survey

The information contained in this survey was collected by telephone calls between December 1984 and February 1985 to certification and accreditation officials in state education agencies and was subsequently verified for accuracy by the chief state school officer of each state or a designated official.

Alabama

A January 1984 report prepared for the state board of education by State Superintendent of Education Wayne Teague includes a recommendation that "Teachers teaching out-of-field should be identified with all due speed. Teachers should either be assigned to teach in their certified field or fulfill all the necessary requirements for the field which is assigned to them. Students have the right to be taught by properly qualified and appropriately certificated teachers."

The report also indicates that "many teachers in Alabama are teaching subjects for which they do not hold approved certification."

State regulations currently permit assignment of a teacher for 49 percent of the teacher's time to a subject for which the teacher does not hold an endorsement on the certificate. Although the assignment is legal, it is supposed to be reported to the state accreditation division in an annual "desk audit" filed by schools, and state officials say the misassignment will be cited as an accreditation demerit to the school, with a period of time, usually two years, allowed for correcting it.

Schools are visited for accreditation in Alabama every 10 years; if on such a visit a school is found to have a teacher teaching during any portion of the school day without possessing an endorsement in the assigned subjects, the school is placed on probation and is subject to having its accreditation rescinded. The only exception is that any certified teacher may teach a minor portion of the day in grades seven and eight if the teacher possesses at least 18 semester hours in the assigned subject. (State officials estimate that 17 percent of Alabama schools are not accredited.)

Alabama is typical of states which rely on the voluntary accreditation process to enforce out-of-field rules. As in other states, it is not clear how strong a deterrent loss of accreditation is; state officials say local communities become aroused if a high school loses accreditation and therefore cannot participate in interscholastic athletics.

Since 1982, Alabama has issued a mathematics teaching "permit" which allows teachers certificated in another field to switch voluntarily to teach mathematics in seventh and eighth grades, or general math, consumer math, or applied vocational math at any grade level, without certification in mathematics, provided the teacher has completed six semester or nine quarter hours in mathematics beginning with college algebra or above, and is enrolled in a program of teacher training leading to proper certification in mathematics. An initial one-year permit can be reissued up to three times for a person who completes at least six semester or nine quarter hours per year of math study. (Alabama specifies that such teachers are teaching "in-field." Fifty-eight such math permits were issued between July and September 1984.)

Alaska

In Alaska, local school districts have complete control over teacher assignments, according to state officials. School districts can hire any teacher who is certified in any field and use the teacher as they wish. The state department does not attempt to keep track of assignments, though state officials say they are working on getting such data on their computer. The only area in which the state insists on proper endorsement is special education.

There are 7,600 public school teachers in Alaska. An estimated 1,900 of them are teaching in "bush area" schools, often one-room school houses, and state officials estimate that 100 percent of these teachers must be assumed to teach out of their fields of certification for a major part of the school day.

Arizona

The state education office in Arizona keeps no records on out-of-field teaching; there are no provisions concerning such teaching in state law or regulations. The state's General Certification Provisions read: "Secondary school teaching field or subject assignments are the responsibility of the employing district board in accordance with current North Central Association of Colleges and Schools guidelines."

Arizona is one of a number of states in which education officials cited the regional associations as standard-keepers for teacher assignment. However, the 1983-85 "Policies and Standards for the Accreditation of Secondary Schools" published by the North Central Association do not mention the possibility of out-of-field assignment, saying only that teachers must have a certain number of hours of academic preparation "in order to qualify for teaching assignments in their specific fields" or may qualify to teach a subject "by passing a proficiency examination."

Membership in the six regional accrediting associations such as the North Central Association is voluntary for schools and is based in part on self-evaluation. Schools pay an annual membership fee in return for benefits which according to the North Central Association include "general public recognition of the quality of a school's program."

Arkansas

In Arkansas, state regulations provide that all teachers shall teach in their certified fields. However, in what state officials call a "minor deviation" from that rule, teachers may teach in unendorsed areas for one period per day without causing the school to receive an advisement on its accreditation report. Though the state research and statistics division does not keep records on out-of-field teaching, a state department official said the agency believes "minor deviations occur rather infrequently and schools only use them when they have to."

Every public school in Arkansas is accredited by the state. Annual reports showing the subjects taught by each teacher are prepared by the districts and filed with the state education agency, which checks them against certification records. Any teachers who are teaching two or more classes out of field are listed on their school's accreditation report.

If five or more instances of out-of-field teaching are reported, the school is warned and must then show progress toward removing its deficiencies. Failure to do so can result in loss of accreditation. A school which loses its accreditation can still draw state funds, but under a law enacted in 1979, any school which fails to meet the state's "A" accreditation rating within two years of notification of a deficiency will be dissolved or annexed by another accredited school. During 1979, 12 or 13 schools were consolidated, according to a state official. As of January 1985, all schools in Arkansas held an "A" rating. However, new, stiffer accreditation standards enacted in 1983 are expected to lead to further annexations.

California

In California, a teacher certificated in one area may be assigned to teach a subject for which he is not certificated if the teacher has nine upper-level (junior or senior year) or 18 total college hours in the second field. This decision is made at the local level and need not be reported to the state; the teacher must consent to the placement.

In order to assign a teacher to a subject for which he does *not* have nine upper-level or 18 total course hours, however, the school district is supposed to request from the state a "limited emergency teaching credential" good for one year and renewable for two additional years if the teacher completes six semester hours of work a year toward appropriate certification. The district must submit a signed statement of its need to make the out-of-field assignment; an example might be the need to cover a "left-over course," a spokesman said.

In California, which has a system of county as well as local superintendents, the county office has the prime responsibility for monitoring assignments of teachers. However, according to a report prepared in July of 1984 by the California Commission on Teacher Credentialing, the system used to monitor assignments is sometimes "inoperative or nonfunctional." The breakdown occurs most often between a school district's central office and the individual schools. Generally, the Commission said, the district central office accurately records initial assignments, but, in many cases, "The school site administrator makes a change in the assignment and fails to notify the central office. The central office, in turn, is not able to notify the county office. The county office continues to issue the monthly pay warrant."

Although it is not clear whether it curbs out-of-field assignment, California requires local superintendents to certify at the end of each school year, under penalty of prejury, that assignments have been as reported throughout the year.

California's Commission on Teacher Credentialing has engaged for two years in an effort to educate teachers and school administrators on the rules surrounding out-of-field assignment in the state, an activity not found elsewhere in this survey. The Commission reports there have been more inquiries about assignment from teachers and administrators during the past year than in the 20 previous years.

Colorado

Local school boards in Colorado determine whether schools are in compliance with a state accreditation standard which requires that all secondary teachers have 20 hours of academic credit in any subject they teach. According to a state official, the state depends upon the "honor system." The state department asks the school district to tell if its teachers have the proper hours to be teaching what they are assigned to teach. If the district says yes, the state department accepts that.

Currently the state accreditation agency is considering a new system in which it would randomly sample a few teachers in the districts to see if they actually have 20 hours of academic preparation in their subjects. According to officials, a recent computer check found "a few discrepancies did exist here and there," and two districts with flagrant discrepancies were placed on probation.

Connecticut

The practice of assigning teachers outside their area of endorsement has attracted considerable press attention in Connecticut, according to state officials, and the state education agency is currently preparing a report based on a computer check of certification against assignments.

Although state law requires that no teacher be paid unless properly certified, and the state will not contribute money for a teacher's salary or benefits during a period of misassignment, the state has not in the past compiled data on out-of-field assignments.

Superintendents are required to state annually that they are in compliance with the regulations governing assignments and must submit annual compliance reports listing all teachers and their major, secondary and tertiary assignments. While major assignments have been checked routinely for several years, secondary and tertiary assignments have not. However, under procedures initiated this year, *all* assignments are being checked by comparing the reports submitted by superintendents with teachers' retirement files and a master file of endorsements. This will result in a printout showing by town which teachers have been misassigned and which teachers' certificates have expired.

When the certification office receives the list of teachers who appear to be misassigned, it will send the list on to district supervisors, who will be asked to investigate. If a misassignment is confirmed, the supervisor may apply for a Temporary Emergency Permit or a Temporary Authorization for the teacher. If neither of these is possible, the teacher must be given a new assignment or fired.

A Temporary Authorization permits the assignment of a regularly certified teacher to a minor field in which the teacher has at least six hours of credit, for one or two class periods a day. The state has not in the past compiled data on how many Temporary Authorizations are issued statewide but is now generating such a report.

Delaware

The state conducts an annual audit to determine if teachers are teaching in the fields for which they are fully certified. State officials say that in 1983-84, fewer than 1 percent of certified teachers in Delaware were teaching out-of-field. All out-of-field teachers must hold "partial" certificates indicating that they have a college minor in the out-of-field area, as well as full certification in a related field.

Officials say they are able to confirm the amount of out-of-field teaching in part because of the small size of the state; Delaware has a total of 6,000 teachers.

Florida

Florida does not monitor out-of-field teaching at the state level, but will begin to do so "when we get our computer program in place next year," according to a state agency official.

So far as state law and regulations are concerned, there appear to be few barriers to out-of-field assignment.

The state board adopts and publishes annually a Course Code Directory which includes the appropriate certification coverages for all subjects. However, the certification identified for each course is not mandatory except in the specific areas of vocational education, exceptional student education, and adult education. Beginning in 1986-87, secondary math and science will become mandatory certification coverages for persons assigned to teach these courses. The state audit system invokes penalties only in vocational, exceptional, and adult education.

Under state law, a school board may grant approval for out-of-field teaching for one year, and may continue that permission thereafter if the teacher acquires six semester hours of credit a year "or the equivalent" toward appropriate certification.

Georgia

According to state officials, 57 percent of mathematics classes and 56 of science classes in Georgia are currently taught by teachers who hold "probationary" or "provisional" certificates in those fields. The state does not compile figures on other subjects. According to Georgia regulations, a person holding a probationary or provisional certificate is considered to be teaching "in-field."

A probationary certificate allows a teacher who is fully certified in one field to teach half-time in another field, provided he has at least six semester or 10 quarter hours of undergraduate work in the minor-time field. Teachers teaching on probationary certificates are not required to work toward full certification in those areas. A "provisional" certificate is granted to a person who has completed a standard liberal arts program with a major in the teaching field area but has not completed professional training.

To audit compliance with its teacher certification requirements, the state education agency requires the directors of district services in Georgia's 10 legislative districts to check annually to determine that all teachers are teaching in field, as "in-field" is defined by the law. According to officials, many school systems have lost accreditation and some have not been reimbursed for teacher salaries where teachers were improperly used.

Hawaii

In Hawaii, according to the state Department of Education, "It is the principal's responsibility to see that the best qualified and effective teacher for a specific course is assigned. Certification is not intended as a restriction in the assignment process, but as a means of assisting the principal in providing quality instruction."

The principal assigns an individual who is capable of helping students achieve in the objectives of specified courses. The first priority is given to a teacher certified in the subject area. Other considerations include knowledge (coursework), teaching skills, experience, and special abilities related to the school program."

The state agency checks teacher assignments against certification "periodically," or in response to requests from the teacher union or others, but does not check consistently on an annual basis or compile data, according to a state official.

Since Hawaii is a single school district, the state agency also serves as the employment agency for schools, and "We are able to control who we send out for interviews and we know that all new teachers are qualified before we send them out." However, it is up to the principal of each school to make assignments, and the state does not have any rules to regulate assignments.

In the absence of data, state agency officials can only speculate on whether much out-of-field teaching occurs; some believe that principals generally assign teachers to teach subjects for which they are certified, but may sometimes assign out-of-field; and others believe many teachers in the state teach half a day in their certified fields and the other half in "related fields." In any case of out-of-field assignment, there are no state requirements for the amount of preparation in the out-of-field area an otherwise certified teacher must have.

Idaho

In Idaho, the State Board of Education Policy Manual states that a person employed by a school district in a position requiring a certificate must hold a valid certificate for the specific type and bearing the specific endorsement required for the service being rendered. Any person not meeting such requirements is deemed to be misassigned and noncertified, and the state is required to withhold state funds for the misassigned teachers.

However, the state superintendent may permit a district to assign a teacher to part-time duties not to exceed two-fifths of the teacher's annual full-time workload, if the misassigned person has at least six semester hours of college credit in each subject area in which such service is rendered and the number of persons misassigned comprise no more than 5 percent of the total number of the district's certificated full-time teachers, or five teachers, whichever is greater. The district must also demonstrate in a written report that it has made a good-faith effort to employ properly certificated educators for those classes.

The state education agency checks assignments against certification every year. In 1984, the state found 98.5 percent of the state's teachers were properly assigned. The 1.5 percent of teachers who were misassigned included both teachers whom the district had permission to misassign and some who were misassigned in violation of the state policy, according to a state official.

Generally, state officials say they find it necessary to withhold funds for misassignment from five or fewer of the state's 115 districts.

Illinois

State regulations in Illinois require that elementary teachers hold "a valid certificate for the grade level to be taught." Junior high and departmentalized upper elementary grades teachers must have 18 semester hours of preparation in subjects which they teach 50 percent or more of the day. High school teachers must present from 20 to 24 hours of academic work for certification to teach a specific subject.

According to state manuals, the only exception is that a school administrator may ask permission for a teacher to teach a subject for which the teacher is not certified, under a "temporary arrangement" good for six months. Such temporary certificates are currently held by less than 1 percent of the state's teachers, according to state officials.

The same officials concede, however, that computer records of teacher assignments in the state are incomplete, and teacher qualifications and assignments are not matched for comparison. One official indicated that he believes school administrators are well aware of the state rules on teacher certification and do not take advantage of the system. Another said that local administrators will "do what they have to do" to cover classes, even though the assignments "may not be true to official guidelines."

The survey found Illinois typical of states, predominantly in the Midwest, in which state law or regulations are virtually silent on the subject of out-of-field assignment of teachers. Inquiries in many of the states were greeted with apparent annoyance that compliance with state standards should be questioned, together with acknowledgment that the state does not gather data on teacher assignments or match local reports against teacher certification records on file in the state agency.

Indiana

Indiana law requires that all teachers be properly licensed and endorsed to teach in a specific field. However, state officials concede that they know out-of-field teaching is going on and believe it occurs most often in small high schools, though the state agency does not collect or aggregate such data.

The state has little incentive to keep records on out-of-field assignments, since the state board does not have power to withhold public funds from schools in which teachers are misassigned. The toughest action the board can take if out-of-field assignments are found in the course of inspections by state certification officers is to lower the school's accreditation rating. (Indiana schools are accredited at one of four levels.) Effectively, therefore, the only penalty to schools for out-of-field teaching is the loss of public image involved in a change of accreditation.

Iowa

Iowa law requires that education personnel "should hold a certificate valid for the type of position in which the person is employed."

Certification and endorsement require a concentration of 30 semester hours in a teaching area. Secondary school teachers may teach in grades 9 through 12 only those subjects for which they are certified and endorsed, or additional subjects for which they have "approval," meaning 20 to 24 hours of preparation in those subjects. In grades 7 and 8, however, a certified teacher may teach any subject (except art, industrial arts, music, physical education, and special education) without specific "approval."

The state agency monitors assignments against certificates by computer every year and informs district superintendents in writing of any misassignments. If the schools do not correct the problem, the state education agency informs the state board, which gives the school a one-year notice. After the year, if the problem remains uncorrected, the board is authorized to "discontinue the approval status of the school."

According to a state official, the state education agency has been known to report school districts to the state board, but no funds have ever been withheld for noncompliance.

Kansas

In Kansas, accreditation regulations say that all high school and junior high school teachers must hold valid certificates with the appropriate endorsement for their "level of assignment." Certification officials say this means, "Out-of-field teaching is not allowed in Kansas."

Officials responsible for monitoring teacher assignments in connection with accreditation say, however, that, while there may be "no intentional abuse of the system," they find out-of-field teaching in mathematics, science, social studies, and English and language arts.

School districts are required to report all their teacher assignments as part of a report filed in January of each year; assignments are checked against endorsements by computer in the state agency, and all potential deficiencies are kicked out. If the computer indicates a violation is occurring, the school district is notified informally immediately, and is asked to respond by indicating that it is aware of a problem, and what it is doing about it. On March 15, with a follow-up on June 30, school districts with misassignments are sent an official warning that if the problems are not corrected, they will be cited on their accreditation reports.

Schools have three years, including the initial year, to rectify misassignments. A school could lose its accreditation status if the situation persists past three years, but this has not happened very often, according to a state official. State funding is not tied to accreditation, which is voluntary in Kansas, though in fact all public schools in the state are accredited.

The state conducts occasional on-site audits of schools for which the state suspects there may be errors in the written reports, but this is not done on a regular basis.

The state does not compile statewide data on out-of-field assignments and is unable to say how many instances of teacher misassignment occur in a given year.

Kentucky

During her term as lieutenant-governor of Kentucky four years ago, now-Governor Layne Collins chaired a committee which did a statewide accreditation study. The study led to changes in state standards, including that out-of-field teaching is now one factor in determining a school's accreditation.

Schools must submit yearly reports in which they indicate that all professional personnel hold appropriate certificates for their positions or assignments, and that all teachers are teaching in their major or minor fields or specific area of concentration. If a school indicates that a teacher is teaching outside these areas for even one period a day, the state agency notifies the district, which must reply saying how it will correct the situation.

In addition, every school in the state is visited every five years by a team of evaluators who conduct an in-depth examination of all phases of the school's operations, including out-of-field teaching assignments. If violations are found and cannot be refuted by the school, the chairman of the evaluating team calls a public meeting with the superintendent of the district, the chairman of the school board, interested parents, and the press to discuss the report. The school board is required to submit a plan to correct all deficiencies and is given three years to make all corrections, with annual reports indicating how much progress they are making.

According to a state official, the fact that districts must now account publicly for misassignments means that "schools are not misassigning people unless they are desperate."

He indicated that such noncompliance as now occurs is primarily in seventh and eighth grades, largely because a state board regulation permits teachers who were teaching out-of-field in those grades in 1982-83 to continue to teach without endorsement under the new accreditation standards. (Kentucky has allowed teachers with K-12 certification to teach any subject in departmentalized junior high and middle schools, no matter what their level of preparation in the subject areas.)

Although problems that show up on accreditation reports, including out-of-field teaching, are not currently tied to state funding, the next session of the state legislature, in 1986, may be asked to act on this point.

Out-of-field teaching "is not nearly as widespread as it used to be," a state official said. "When the first pilot teams went out to do their in-depth accreditation checks four years ago, the schools didn't take them seriously. When their reports were written and reported to the public and the press, and suddenly a plan for correction was required, and an annual report showing progress, they began to change their tune," he said.

Louisiana

Louisiana allows a teacher certified in one field to teach up to two hours a day in an area for which he or she is not certified, provided the teacher has a minimum of 12 hours of academic work in the uncertified area.

According to state officials, if an annual school report to the state shows that even one teacher is assigned out-of-field beyond the 12-hours, two-hours exception, the school receives a citation and its accreditation rating is lowered to "provisional" from "approved." If the citation shows up for a third year, the school is placed on probation and has 30 days to clear up its problems or lose state funds. So far as state agency officials remember, however, the state has never withheld funds from a school district for out-of-field teaching.

Louisiana keeps no statistics on the number of fully certified teachers who are assigned out of field. The state does know, however, that 1,766 teachers in the 1983-84 school year are teaching on "temporary certificates" valid for one year which are issued under state regulations to persons who hold bachelor's degrees but are not certified in the fields they will be expected to teach. Of the 1,766, 1,260 are certificated in another field; 506 hold no certificates at all. After the first year, a temporary certificate cannot be renewed unless the teacher has acquired at least six semester hours in the field for which he is temporarily certified. Three hundred of the temporary certificates in '83-'84 were in kindergarten and elementary school.

Maine

Six years ago, a survey by the state education agency found that 13 percent of high school teachers in Maine were not teaching in the field of their college majors or minors.

Maine is currently revising its certification procedures in line with a new law enacted in 1984. That law, Maine Public Law, Chapter 845, which becomes fully effective in 1988, provides for a career ladder which begins with a "provisional" level for all new teachers. After a maximum of two years, the teacher may apply for a "professional" certificate, the second step on the career ladder. At both provisional and professional levels, the law says a teacher "may not teach outside his or her area of endorsement unless he or she has received a waiver from the Commissioner in accordance with state board rules." According to the state education agency, no rules have been developed by the state education agency, no rules have yet been developed by the state board as to the circumstances under which such waivers will be granted.

Prior to enactment of the new law, Maine allowed secondary school teachers, under a "blanket credential," to teach any "general academic subject," which included English/language arts, social science, foreign language, science, and mathematics, allthough state board of education regulations "expect" that teachers will be assigned except in emergencies, to subjects "where they have competence."

Maryland

In January 1985, the Maryland State Board of Education adopted an assignment by-law which says teachers may not be assigned out of their certified areas for more than two classes per day. The board allowed an exception to its new rule, however, saying assignment out-of-field for more than two periods a day is acceptable if the teacher works toward endorsement in the uncertified area at the rate of six semester hours a year.

Since Maryland law requires a minimum of 24 semester hours for endorsement in a subject field, the out-of-field teacher could presumably teach without full certification in a subject for four years.

The state, which previously made no effort to monitor assignment of teachers and left it to the discretion of local boards to use teachers any way they wished, says it is now requiring local school systems to report out-of-field assignments annually. This survey was also told that the state is in the process of setting up a data base so that it can check teacher assignments against endorsements.

Since Maryland has in the past collected no information about misassignment, it has no data on the subject, and state officials decline to estimate how widespread out-of-field teaching may be.

Massachusetts

The state specifies that a teacher certified in one field may not teach more than 20 percent of his or her time out of the field of certification, but the state does not monitor this provision.

Each school committee is required to maintain as a public record, in a central location or in each school, a list of the names of all staff members and the assignment and credentials of each.

The state education agency grants certification waivers each year "to allow school committees which are unable to find a certified and qualified candidate to hire one not appropriately certified." The state says this provision is monitored, and "very few waivers are granted."

Michigan

Michigan law and regulations require that school districts employ only certified teachers. However, it is state "policy" to allow teachers to teach out-of-field for two periods a day, provided the school district signs a notarized affidavit that a certificated teacher is not available, and receives a permit. The teacher is not required to have any preparation in the subject he or she is assigned to teach during the two periods.

Although the state issues a permit for each instance of out-of-field teaching, it has no statistics on how much out-of-field instruction is actually going on because the identical permit is issued to substitute teachers. State education officials say no attempt is made to distinguish between the two uses of the permit.

The state board is currently in the process of raising the subject matter preparation requirements for middle-level teachers (grades six through eight).

"At present, sufficient numbers of fully certificated teachers are available in most areas in Michigan," the state agency said. "Projections suggest, however, that shortages of elementary level teachers are developing. Many districts report a shortage of substitute teachers."

Minnesota

Minnesota law states that a qualified teacher is one holding a valid license to "perform the particular service for which he is employed in a public school."

School districts report all teacher assignments annually to the state agency. The assignments are checked by computer against the teachers' licenses. A turn-around document is sent back to the district listing all teachers who appear to be teaching out-of-field. If the district finds that the teachers are, in fact, out of field, it must make a "reasonable attempt" to correct the problem or risk having its foundation aid withheld.

A yearly statewide tally of out-of-field assignments is made by the state agency. A state official indicated that this report is not made generally available, because upon close examination of the districts' and the teachers' records many of the "allegations" that teachers are out-of-field appear to be incorrect.

According to the state agency, one of the major reasons for out-of-field assignments is geographics—"small schools which offer six periods of math but have only one math teacher available must assign a teacher out of field to cover that position."

In addition, in 1983-84, 100 teachers were covered by letters of approval which allow superintendents who are having trouble staffing a position due to a shortage to assign a teacher fully licensed in one area to work in an area related to his or her licensed area for a one year period. Renewal requires six quarter hours in an approved university program leading to licensure in the new field and another statement by the superintendent that he has been unable to locate a fully licensed person for the position.

Most out-of-field teaching occurs in the English, math, and science fields, a state official said. He said further, that due to the supply of teachers in Minnesota brought about by recent years of declining enrollment, the number of out-of-field assignments has decreased over the past five years.

Mississippi

An Education Reform Act passed by the state legislature in 1982 required the Mississippi State Department of Education to conduct a study of the extent to which teachers are teaching out of their fields of certification, the conditions that promote the practice of teaching out-of-field, and the most probable solutions to the problem.

In a study completed in June 1984, the Office of Teacher Certification of the state department reported the findings of a survey of 40 randomly selected schools in Mississippi during the 1983-84 school year. In framing its questions to school administrators, the study specified that data was sought on all teachers teaching outside their fields of certification, even though accreditation requirements in Mississippi currently allow teachers to teach for "a minor part of the school day" (defined as not more than two periods a day) in uncertified fields if they have at least 12 semester hours of preparation in that field. (Mississippi has since changed its definition of a minor subject area to one in which the teacher had at least 18 hours of work.) On the basis of reports from the 40 schools, the certification office extrapolated that 1,319 teachers were assigned out of their field of certification for some part of the school day in 1983-84.

The study found that:

- Most out-of-field teaching was not technically illegal, since the teachers had at least 12 semester hours of preparation in the noncertified field.

- The amount of out-of-field teaching is three times greater in secondary schools having 20 or fewer teachers than in those with 40 or more teachers. Out-of-field teaching was most common in the social sciences, followed by general science, mathematics, and English, in that order.
- According to the survey, teachers were assigned out of their fields for the following reasons:
  - Overload (meaning a school has too many sections of the subject for one teacher, but not enough for two)—39 percent;
  - Offering the maximum possible Carnegie units (the school desires to provide a wide range of courses but does not have fully certificated teachers for all of them)—24 percent;
  - Certified teachers are not available for employment—12 percent;
  - Underload (meaning a specialized teacher is on the faculty but does not have a full class load; other subjects are assigned to fill the teacher's day)—11 percent;
  - Administrative decision—8 percent;
  - Extracurricular activities scheduled during the school day—5 percent.

Fifty-five percent of the school administrators responding to the Mississippi survey suggested that the best remedy for out-of-field teaching would be to require all secondary teachers to hold dual certification. Eighteen percent recommended changing certification requirements; 15 percent suggested teachers should be retrained in needed areas; 8 percent voted for transporting students to other schools for special classes; 2 percent recommended flexible scheduling; and 1 percent suggested school consolidation.

The Certification Office suggested that "clear and concise communication directed to administrators having responsibility for assigning teachers" should be sent several weeks before the beginning of a school year.

In another move related to out-of-field teaching, Mississippi will require all students graduating from programs of teacher education to have a minor in a field in which they have two-thirds of the hours required for a major. This is a step, according to state officials, toward dual certification of all teachers.

Missouri

The state education agency "knows about every misassigned teacher" and says that currently, not more than 2,500 of the 48,000 teachers in Missouri are assigned to subjects or areas for which they are not certified, for even one period of the school day.

School districts are required to report teacher assignments in October each year. These are checked against computerized records of teacher qualifications on file in the state agency.

Any indication that a teacher is not qualified for his or her assignment is referred to one of 10 district supervisors as a possible citation. The supervisor, who visits every school district in his region every year, calls assignment problems noted by the computer to the attention of school officials. According to state officials, many of the apparent irregularities turn out to be "paperwork problems"—a teacher's summer courses may not yet have been recorded in the computer, for example. "If 15 items were listed as possible violations, the district supervisor might be able to straighten out 12; the remaining three would be listed on the classification report as citations," a state official explained.

A citation on a classification report could result in lowering of the school's classification rating, which can have considerable public relations consequences in Missouri, according to officials. "The school is demoted, and prestige is involved," he said.

There are exceptions in Missouri: state officials concede that some schools—usually small and in rural areas—take considerable pride in being unclassified "U schools' that cherish independence from all state rules, including those on teacher assignment. These schools do have to report out-of-field assignments, which are included in the state's figure of 2,500 misassigned teachers.

Missouri issues "provisional certificates" which provide two-year nonrenewable certification to teachers who are within eight hours of meeting all licensing requirements, for high school, and within 12 hours of full certification, for elementary schools. Provisionals are issued on request of the teacher and the employing school administrator and do not have to be in shortage areas.

Montana

Montana schools are required to report early in the school year whether they have any teachers who are not endorsed in the fields they are teaching. Endorsement in Montana requires a major or minor in the subject field. (State regulations require that teachers be assigned at the levels and in the subjects for which their certificates are endorsed. An exception is made for teachers assigned in grade 7 or 8 who hold a secondary certificate, who are allowed to teach in subject areas for which they have 10 semester credits of preparation including one methods course.)

No statewide overview of out-of-field teaching is generated, and state officials say only that out-of-field teaching is one of the points checked during on-site audits of schools which occur every five years; on the basis of these audits, state funds could eventually be withheld from schools which do not correct problems.

A review of the data on teachers teaching without endorsement in one field—mathematics—showed, according to a state official, that "There are 518 teachers teaching math in junior and senior high school. Of these, 54 are not specifically endorsed in math."

Nebraska

In Nebraska, regular teaching certificates are legally valid for all subjects, K through 12, regardless of the area of endorsement on the certificate. Since the certification is so flexible, the only constraint on out-of-field teaching in Nebraska is the need of schools to be "approved" or "accredited." As one official put it, districts may allow teachers to teach out of their fields "if they feel their schools can stand the demerits."

Currently, approved secondary schools must have 70 percent of their teachers in their endorsed areas; accredited secondary schools must have 80 percent. Accredited elementary schools must have 95 percent of their teachers asssigned in their endorsed areas; approved elementary schools must have 90 percent. A teacher who is teaching out-of-field technically cannot be recertified (Nebraska requires recertification every seven to 10 years) when the certification expires, but a teacher can get around that problem by completing six semester hours of course work "or the equivalent"during the period of certification.

Currently, Nebraska officials say they believe out-of-field teaching is occuring "less and less." Nebraska has 962 school districts, and the state believes that as the districts are consolidated, out-of-field teaching will become less common.

Nevada

State law in Nevada says a secondary certificate authorizes the holder to teach in his major or minor field of preparation or in both fields in any secondary school. A teacher may teach only in these fields unless an exception is approved in a manner provided by regulations of the state board of education.

Currently, a local superintendent must apply for an exception to the state. Under an exception, a teacher certified in one field may teach out of that field for one year without any preparation in the uncertified field. The exception can be continued for a second year if the teacher shows that he is working toward an endorsement in the field.

In the 1984-85 school year, according to a state official, in all academic subjects 159 exceptions were granted. That is 2 percent of the state's total of 8,500 teachers.

Asked how the state monitors whether any unauthorized out-of-field teaching is going on, a state official said school districts report teachers' assignments and fields of certification at the beginning of each school year. In addition, all programs receiving special funding from the state or federal governments are audited to ascertain certification status of instructional staff. The Nevada state education agency indicates that few discrepancies are found in the districts' reports.

New Hampshire

New Hampshire, a small state with 10,000 teachers, reports that it has no written rules concerning out-of-field teaching. However, a state official said it is "a working policy" that a teacher in New Hampshire is "allowed to teach out-of-field for less than 50 percent of his teaching day." No minimum hours of academic preparation in the uncertified field are required.

"Superintendents have the power to determine which teachers shall be assigned out-of-field," the official said.

"We do not have a refined method of enforcing our working policy," a state official said. The state agency deals with some 50 cases of violations of the working policy each year, he said, which usually were brought to the state's attention by "someone who is having a problem with the teacher."

Conceding that the state does not know how many teachers are assigned out-of-field under its informal policy, a state official said nonetheless that "If you asked around, you would find that most people in the state would have the impression that all teachers must be endorsed in everything they teach."

New Jersey

Beginning September 1, 1985, New Jersey is implementing a new "alternate route to certification" that will allow school districts to employ persons who hold bachelor degrees in the subjects they will teach but do not have pedagogical training. One of the purposes of this new initiative, according to state officials, is to reduce the use by districts of "emergency certificates" under which less-than-fully qualified persons could be hired as teachers. State officials say it is also intended to reduce out-of-field assignment of otherwise certificated teachers, in other than a list of exempted teaching categories such as bilingual, vocational, and handicapped.

New Jersey collects data at the state level on teacher assignments and is able to compare this by computer with teacher certifications. A computer run that would show out-of-field assisgnments can be done "if it is requested" and is done "sometimes," a state official said.

Out-of-field teaching is one of the aspects of local school system operation being checked under a new system of district evaluation and certification now under way in New Jersey. According to a state official, "even one teacher not properly certified would put the district in a different certification level." So far, the state has checked 44 percent of its 585 operating school districts under this new procedure; deviations are being reported to county offices, each of which has one person working on certification.

New Mexico

Although New Mexico requires that "instructors hold current valid teaching certificates appropriate for their assignments," the state board has authorized the state superintendent to "modify" the certification requirements at the request of school districts if "acceptable" explanations are given.

A certified teacher may teach outside his or her endorsed subject area under such a waiver, according to state officials.

A 1984 report by the state department of education says requests for waivers have "declined substantially" in the past five years.

New York

A New York regulation permits "incidental teaching," meaning that a superintendent of schools, with the approval of the Commissioner of Education, may assign a teacher to teach a subject not covered by his or her license for a period not to exceed five classroom hours a week. The teacher assigned under this regulation is not required to have any minimum preparation in the minor teaching area.

The state agency collects school schedule information annually and could run a computer check which would list teachers teaching without proper certification. However, the state agency runs such checks only "on demand," when someone raises the issue, according to a state official. A check was run recently on the schedules and credentials of teachers in the 1983-84 school year, for all areas outside New York City. The resulting computer printout showed the total number of teachers of a subject, and the number teaching the subject without certification for five or fewer periods per week.

The results by subject were as follows:

- In English, 282 or 2.7 percent of 10,426 teachers were teaching subjects for which they were not certified, for five or fewer hours a week.
- In mathematics, the figures were 450 or 4.4 percent of 10,148 teachers;
- In social studies, 119 or 1.4 percent of 8,449 teachers;
- In chemistry, 20 teachers, or 1.4 percent of 1,407 teachers;
- In physics, 20 or 1.4 percent of 1,302 teachers.

A comparable check was done four years ago. According to a state official, this year's check revealed that the numbers have not changed much.

North Carolina

In North Carolina, following an extensive report on out-of-field teaching by the North Carolina Center for Public Policy Research, the state board of education adopted an out-of-field policy which became effective in July of 1983. In compliance with this policy, the state agency communicated with all school systems and required them to list all teachers who were teaching out of their certified fields.

It further required that the district request appropriate provisional *certification* for any teachers teaching out-of-field half-time or more, or provisional *endorsement* for teachers teaching out-of-field less than half time.

The state agency then informed each teacher of what he or she must do to become fully certified or endorsed by acquiring additional college hours in the field at the rate of six per year. A state official said that thousands of teachers were processed by the certification office.

In their requests for provisional endorsements for less-than-half-time out-of-field teaching, school districts were allowed to submit "evidence of competency other than college credit," which the state agency "equated to semester hours of credit and applied toward meeting the endorsement." This means, according to critics of the North Carolina procedures, that teachers who were teaching out-of-field are now being qualified to continue such teaching on the grounds that they were already doing it.

Later in the 1983-84 school year, the certification office went through a second process in which it examined the certificates of teachers who were not teaching out of field and added endorsements to the credentials of those who qualified.

In order to receive clear certification in North Carolina, the teacher must meet the requirements of a university program. An endorsement requires 18 hours of preparation and entitles the teacher to teach the endorsed subject less than half the day. The middle grades are a special case: if a teacher had ever taught in the middle grades or was currently doing so, the state added any area in which the teacher had 18 hours of credit to the teacher's credential as a clear certification area for the middle grades.

As of the 1984-85 school year, the state had not yet implemented another provision of the new policy which requires that the state superintendent publish and make available to the public an annual statewide report of the number of teachers who are teaching subjects in which they do not have certification.

North Dakota

State education officials say categorically that no high school teachers in North Dakota are teaching out-of-field. Since 1961, state law has required that every teacher in any high school in the state must have a major or minor in the course areas or fields that he is teaching, if the high school is to "receive any approval by the department of public instruction." (A minor is defined as any subject in which the teacher holds 16 semester hours of credit. North Dakota regulations do not prohibit a school from using a teacher in his minor field all day.)

Since 1970, the law on teacher assignment and a law relating to minimum curriculum have been enforced by reducing foundation aid to school districts that are found in violation. In 1970, the first year in which the laws were tied to money, the penalty for violations was $13 per high school student, and 70 districts were found out of compliance. In 1971, when the penalty became $450, "everyone was in compliance," according to the state's certification director. In 1984, a school district would lose $1,280 per high school student, and since the state pays $1,500 per student in foundation aid, "a district punished in this way would go out of business," state officials said.

At the elementary school level, there is no financial penalty for out-of-field assignment (such as using a teacher with high school certification as an elementary teacher), but a school which is found in violation is penalized by loss of points on its accreditation report.

Ohio

Ohio's guidelines for temporary certification say that "in extreme emergencies a teacher may teach less than his or her full load in an area in which the teacher does not hold standard certification." A superintendent may request a "less than half-time" temporary certificate if the teacher has at least 12 semester hours or 18 quarter hours of preparation in the temporary area. The less-than-half-time certificate may be renewed, but only if the teacher has taken at least two courses in the new field and, preferably, is working on a planned program for completion of all requirements.

Ohio, like many other states, does not separate its statistics on teacher assignment by the kind of temporary certificate a teacher may hold. "Full-time temporary" certificates, for example, which may be issued in a few teaching fields such as industrial arts, driver education, school nurse, or adult education, and temporary certificates issued to substitute teachers are included in the same statistical category as the certificates which permit teachers certificated in one area to teach less than half time in another area. Officials say that "roughly" 10,000 temporary certificates of all kinds are issued each year (out of 100,000).

The state requires schools to report teacher asssignments each year. These are matched by computer with teacher certification record. If there isn't an appropriate match, state officials say, the school is notified by a state field officer, and continued failure to correct the mismatch can jeopardize the school's state funding. The Division of Elementary and Secondary Education conducts on-site evaluations of schools every five years; one of the points checked is whether teachers are appropriately assigned to subjects in which they are certified.

Oklahoma

Secondary teachers in Oklahoma are certified to teach a major portion of the day in their major academic field and a minor portion of the day in their minor academic field. Certified elementary teachers are allowed to teach any subject in an elementary school organization except remedial reading. A secondary teacher who is assigned to teach a subject that is not reflected on his teaching certificate is considered misassigned or out of field.

Misassignment of teachers in Oklahoma is tied to accreditation, which is in turn tied to state funding. If a school is found on the basis of annual reports of teacher assignments or reassignments and teacher certification or visits by state agency officials to have teachers assigned outside their areas of qualification, the school is given an accreditation deficiency which can lead to loss of accreditation.

"The school is given a notice: get rid of the teacher, or lose your accreditation," a state official said. The only exception is that the school may ask permission to use the teacher to the end of the year. Both the academic preparation of the teacher and emergency situation are considered in granting such an exception, according to state officials.

All information on assignments, and enforcement of the out-of-field rule are handled by district supervisors in Oklahoma, and the data is not aggregated at the state level. The state declines to estimate how extensive out-of-field teaching is statewide but says it is not considered to be a major problem or issue at this time.

In Oklahoma, as in many states, out-of-field teaching rules are somewhat less restrictive at the junior high school level. Here, a teacher who holds an elementary certificate may teach a subject in which the teacher has 12 hours of academic preparation; if the teacher holds a secondary certificate, 18 hours of academic preparation in the subject are required.

The current provisions represent a considerable recent tightening up of teaching field requirements, according to a state teacher educator. "Had your study been done earlier, the response could not have been as definite as the one you received," he said.

Oregon

In Oregon, state administrative rules define "misassignment" as "assignment of a certified person to a position for which he or she does not hold the endorsement required by *Rules for Certification.*"

All such misassignments are to be temporary in nature and due to an emergency, according to the regulations, and misassignments of two periods or less must be reported by October 15 each year or within six weeks of the beginning of the misassignment. (A period is defined as a class approximately 50 minutes in length or the equivalent.) The state has no regulations controlling these assignments, and the teacher is not required to have any preparation in the noncertified area.

Also, the state allows schools to assign teachers outside their certified areas for more than two periods a day, provided an emergency or provisional certificate is obtained for the out-of-field asssignment and the teacher begins working toward full certification in the subject area at the rate of nine quarter-hours per year.

If the misassignment is for more than two periods a day, the employing superintendent must, during the first year of the misassignment, file a report with justification, which may be approved for the remainder of the year. In the second year of misassignment, the teacher is required to obtain an "emergency certificate" and begin work toward full certification in the subject area at the rate of nine quarter-hours a year, *except that* "If the Executive Secretary [of the Teacher Standards and Practices Commission] deems that the demographic characteristics of the district, the size of the student body, the number of certified personnel and the educational practices of the school warrant, an educator may be permitted to continue in a misassignment without additional preparation."

At the junior high or middle school level, a teacher holding elementary (K-9) certification may teach any subject in the curriculum, except that in departmentalized situations, if a teacher is assigned to teach 50 percent or more of his or her time in certain subjects, the teacher is required to hold the appropriate specialized teaching endorsement in that subject. These subjects now include art, librarian, foreign languages, health, home economics, industrial arts, music, physical education, and reading. As of January 1987, mathematics will be added to the list of fields in which teachers must hold appropriate specialized certification. The state association of science teachers attempted in 1984 to get the Certification Commission to add science to the list as well, but were not successful.

Pennsylvania

Pennsylvania regulations on certification and staffing specify that "no professional employee shall be assigned outside the areas for which the certificate is endorsed." However, the state agency says, "to provide a solution to a short-term or long-term staffing problem in a public school entity when no properly certified teacher is available to fill a position, an emergency certificate may be issued to a teacher having a reasonable concentration of collegiate-level coursework in the area of the emergency request."

State officials in Pennsylvania, as in many other states, do not separate emergency certificates allowing such out-of-field teaching from other kinds of emergency certificates, including those issued to substitute teachers. Thus there are no data on out-of-field teaching under emergency certificates. In addition, the state does not know how much out-of-field teaching goes on without emergency certificates. As one state official puts it, the state certification office in Pennsylvania "knows what teachers are certified to teach, but does not know what they are teaching."

State auditors check school districts periodically, but certification audits may be a random sampling, depending on the size of the district. "Not every teacher's certification is checked," the state agency said. "There are 501 school districts, 29 intermediate units, and about 94 area vocational/technical schools. Because the audit staff is small, it is physically impossible to check every teacher's assignment every year."

The state agency depends not only on audit staff but on "outside sources," including parents and teacher unions, to report certification violations. Any discrepancies found in this way can lead to schools being penalized through the withholding of state subsidies, a state official said.

Rhode Island

State officials say flatly that Rhode Island does not allow out-of-field teaching.

Enforcement of a law requiring that all teachers be appropriately certified has been stepped up in recent years, according to a spokesman. Now, teachers are required to submit each September an affidavit stating what subjects they are teaching. These statements are matched with the certification information on file in the state department, and an "Out-of-Area Report" is generated for each community. The local superintendent receives a letter listing the teachers who appear to be out-of-area, and is ordered by the state department to reassign the teachers immediately. The local school district may be required to submit all state aid money which went to help pay that teacher's salary from the first day of the misassignment until the teacher is properly assigned.

State aid has been withheld from local school districts. Strict enforcement of the rule against assigning teachers out of certification area has resulted in a sharp decline in violations, according to state officials.

Beginning in October 1984, Rhode Island is requiring all new secondary teachers to have 30 hours of work in the field in which they will teach and to have taken certain specified courses. Eighteen hours were previously required for endorsement.

Rhode Island currently has a surplus of teachers, many of whom hold dual or triple certification, according to a state official. Although the state will issue an emergency certificate if a superintendent is unable to find a fully qualified person to fill a teaching vacancy, only 25 of Rhode Island's 8,000 teachers currently work under such certificates, and those are primarily in bilingual and vocational education, he said.

South Carolina

South Carolina regulations state that "a teacher who is teaching a majority of classes in areas in which he is properly certified may be given teaching assignments in subject areas for which he is not properly certified if the teacher has completed a minimum of six semester hours in the subject area assigned." No permit is required for such teaching.

However, the regulations also permit a superintendent to request a permit for a teacher to teach *more* than half-time out of the area of certification. To be eligible for such an out-of-field permit, the teacher must have 12 semester credits in the subject area assigned.

The state monitors the assignment of teachers by collecting annual reports which are filled out by the teachers and show schedules and assignments. The reports are checked against certification by computer. The resulting report shows which classes are being taught by teachers who do not hold proper certification, including both those holding permits and those who are teaching out of field for a minor part of the day without permits.

The computer compares the number of classes taught by teachers who do not hold certification to teach their assigned classes to the number of classes offered by the school. If teachers who are not fully certified are responsible for 10 percent or more of classroom instruction time, this fact will be listed on the school's accreditation report as a deficiency. Also, any teacher who does not hold a certificate at all would show up on the report.

Schools which are cited for deficiencies must correct the teacher misassignment or drop to a lower accreditation level. If the deficiency is not corrected within four years, the school will be dropped from accreditation and will lose state aid. A state official said this happens to very few schools.

South Carolina does not have its computer programmed to aggregate data on out-of-field teaching on a statewide basis. Instead, this information is available school-by-school.

South Dakota

Fifty percent of the high schools in South Dakota have fewer than 150 students. This creates pressure to assign teachers outside their areas of endorsement, according to state officials. Teacher certificates in South Dakota are endorsed to show the applicant has earned a major in one or more of 15 subject areas. Teachers teaching outside their endorsed areas are required to have 18 hours of preparation in the unendorsed subject, less than would be required for a major but substantially more than is expected for out-of-field teaching in many other states.

In addition, a teacher teaching outside the field of endorsement must work toward meeting the number of hours required for full certification in the minor field, at the rate of eight hours per year. The school district must request permission for the assignment and must submit a plan for working toward certification. The state then issues an "authority to act," permitting the assignment.

Generally, according to state officials, teachers will be assigned to teach only one or two periods per day outside their endorsed areas. School districts fill out records of teacher assignments each year. These are checked by computer in the state agency against records of teacher qualifications. If there is a discrepancy, the teacher's transcript is searched to determine if he or she is qualified on the basis of academic preparation to teach the assigned course.

Of South Dakota's 8,300 teachers, 200 to 300 are working outside their endorsed areas this year under "authorities to act" issued by the state.

Tennessee

In Tennessee a certified teacher is permitted to teach one subject out of the teacher's field of endorsement for a maximum of two periods per day, "if in the judgment of the principal of the school and the superintendent, the certified teacher has had sufficient training to do an acceptable job in the noncertified area." No waiver is required.

If a teacher is to be assigned out-of-field for more than one subject and two-sections, a waiver is required. Normally, a waiver would be easy to get, according to a state official, "because the teacher wouldn't have been assigned outside of his or her field in the first place if there were any other way to solve the problem." Waivers are usually given if a district is unable to hire a fully certified person.

The number of teachers who are teaching out-of-field under waivers is currently a subject of some dispute in Tennessee. State officials declined to indicate how many waivers have been granted for the 1984-85 school year, saying that the state board has discussed the issue and believes the number of waivers the state has recorded is inflated. The state board has asked that a study be made to determine how many waivers are actually being used.

According to a state official, the state commissioner wants to end the practice of granting waivers within the next five years, and the state legislature in a recent career ladder proposal indicated that one of its goals is to end the waiver practive.

The state monitors teacher assignments by requiring the schools to fill out "preliminary reports" each fall and submit them to one of nine district offices in the state. The report lists the teachers' assignments and endorsements. The district staff must check out each discrepancy and make sure the out-of-field teachers are covered by waivers.

Texas

If a Texas teacher is assigned out-of-field for one class a day, no permit is required, and the teacher need have no preparation and is not required to work toward full certification in the area.

In addition, Texas regulations permit school districts to issue Temporary Classroom Assignment Permits which allow a teacher who holds certification in a secondary school subject area to teach two or more classes a day in another area in which he or she has 12 semester hours of preparation but is not certified. The TCAP may be issued for two years per assignment area for each individual teacher, during which the teacher must work toward full certification in the subject area at the rate of six semester hours per year.

Currently, the state is not informed of Temporary Classroom Assignment Permits, and the state agency says it does not know how many there are. "They are issued by the district, and the number would change daily" a spokesman said.

The record of temporary assignment is kept in the teacher's folder in the school district. When the teacher has completed the college hours necessary for full certification in the second area, the college informs the state agency directly, and the additional teaching field is added to the teacher's certificate.

As part of on-site audits of schools every three years, state auditors examine teachers' folders; if they find teachers who are not properly certified for the courses they are teaching, they inform the district that the teacher is eligible for a TCAP or should be reassigned. Failure to correct the problem could result in a citation on the school's accreditation report. All but 30 of Texas' 1,068 school districts are currently fully accredited.

Utah

Utah issues a general certificate based on a major and minor studied in college, but teachers are not required to teach the subjects for which they are prepared. "We operate under a very lax system at present," a state official said. "The statistics make it very easy for anyone to grasp the magnitude of the problem."

Beginning with the 1988-89 school year, according to state board regulations, "teachers will not be assigned to teach any required course unless they hold a current Utah teaching certificate, have completed an undergraduate or graduate major or minor, completed a State Board of Education approved inservice program, or demonstrated competency in the subject area."

Utah aggregates data at the state level on the characteristics of teachers in its school districts. A report on Status of Teacher Personnel in Utah for 1983-84, for example, classifies teachers in each district by age, sex, ethnic or racial group, academic preparation, years of professional experience, and assignment.

According to the 1983-84 data, as reported by teachers themselves, the following percentages of teachers with major teaching assignments in the subjects listed had neither a college major nor a college minor in those subjects:
General science: 75.8 percent
Science, earth/space: 82.1 percent
Physical science: 43.1 percent
Biology: 25.1 percent
Mathematics: 28.3 percent
Language arts: 10.8 percent
Foreign language: 14.8 percent
Social studies: 7.9 percent

For teachers with minor teaching assignments in the subjects listed who had neither majors nor minors in those subjects in college, the figures are as follows:
General science: 78 percent
Science, earth/space: 88.8 percent
Physical science: 64.6 percent
Biology: 49.2 percent
Mathematics: 70.6 percent
Language arts: 29.8 percent
Foreign language: 25.2 percent
Social studies: 24.1 percent

(In general, a "major teaching assignment" in Utah is defined as the subject the teacher teaches more than any other subject. That is complicated, according to a state official, by the fact that "Some teachers may teach six different subjects. In that case, the teacher may list as his major assignment the class he teaches the first period of the day, and list all other classes as minor assignments.")

The Utah state education agency indicates that the figures for out-of-field teaching in science "are not as easy to interpret statistically as they are for math" because the data is compiled for the four science areas. If a biology teacher is considered inappropriately prepared unless he has a major, minor, or the equivalent of a minor in *biological science*, for example, the percentage considered unqualified is higher than if preparation in *any science area* is accepted as the criterion.

Utah state officials also point out that the annual survey of primary and additional teaching assignments has now been changed to reflect credits teachers have earned through in-service or other supplemental training beyond their college majors and minors, and this "equivalency" will be taken into account in new statistics.

Utah officials make the point that extensive out-of-field assignment of teachers "has important implications for in-service education."

"A massive effort will be required to assure that all students in Utah are taught by educators who are competent in the subject areas they are assigned to teach," a spokesman said.

Vermont

Vermont regulations require that all teachers and administrators be appropriately certified, and endorsed in any of 40 subject areas, on or before the first day of service.

According to state officials, "In order to be valid, each certificate must have one or more endorsements indicating the achievement of competence related to the duties the holder is to perform. Endorsements limited in time, level, or scope may be issued based on the background and experience of the educator. In addition, an individual may be certified through a peer evaluation process based on competence, preparation, and experience in the field for which an endorsement is sought."

Even those requirements may be waived for one year, the state says, if the school superintendent and the candidate present a formal request indicating that there is a severe shortage of certified teachers in the field; the local district is unable to find applicants because of this shortage; and the candidate possesses "extraordinary and outstanding compensating qualifications."

State officials say they believe assignments are generally being made in the area of endorsement, though they concede that they do not routinely compare staff data reported by schools each fall with certificate endorsements on file in the state agency office. Assignments would only be checked against qualifications if questions about a teacher's competence were raised by an "outside source," a state agency spokesman said.

Virginia

On the basis of data supplied by local school division superintendents, Virginia each year publishes a list of "unendorsed teaching assignments." For 1983-84, the following were the percentages of teachers teaching one or more elementary grades, or one or more class periods in a high school subject, for which they were not endorsed, according to the state's figures:

Elementary: 1.57 percent
Kindergarten: 2.28 percent
Primary grades 1-3: 5.49 percent
Intermediate grades 4-7: 4.86 percent
Elementary guidance: 23.67 percent
Secondary guidance: 13.95 percent
English: 8.94 percent
Social studies: 7.95 percent
Mathematics: 5.88 percent
Biology: 2.93 percent
Chemistry: 6.84 percent
Earth science: 33.59 percent
General science: 33.59 percent
Physics: 16.91 percent
French: 4.22 percent
Spanish: 3.97 percent
Russian: 16.67 percent

Since such out-of-field assignments constitute deficiencies in the school's accreditation, each school must decide if it can afford such assignments in terms of the accreditation level it wants to maintain. "If the school feels it can stand the deficiency on the accreditation report, it can continue to use the teacher in an unendorsed field year after year," a state official said.

Washington

In Washington State, teachers are employed on "initial" certificates. An initial certificate is valid for four years and may be reinstated for six more years. After completion of additional "academic experience, and competency requirements" (a minimum of 45 quarter-hours) the teacher moves to a "continuing" certificate.

Currently, state board of education rules require that initial level teachers must be assigned to endorsed areas and levels only. Recent action by the state board of education requires that effective July 1, 1986, each person receiving a continuing certificate shall be restricted to professional practice only in areas in which an endorsement has been received. The current requirements for obtaining an endorsement and the areas of endorsement are to be modified between now and that date.

There is a substantial exception for even initial level assignments, however. The state board of education rules state that "when it is considered justifiable, the superintendent of public instruction may, if requested by the school district superintendent, who will provide evidence of the need for such assignment, authorize initially certified teachers to serve at different grade levels or in different subject matter fields from those recommended.

The state education agency was unable to say how many teachers holding initial certification are currently assigned out of field under the "justifiable" exception; a spokesman said that information is being gathered.

West Virginia

West Virginia is under a state supreme order which spells out many details of its school system operation, including the financial structure for teacher salaries. School districts report teacher assignments at the beginning of each school year as part of salary claim forms. Since out-of-field assignment is barred by state law, and since incorrect reporting of assignments would constitute an illegal claim for state funds, state officials believe that district superintendents are careful to provide accurate data. They concede, however, that superintendents could shift teachers within the school year, after the salary claim report was filed.

If out-of-field assignments showed up on the initial report, they would be kicked out by the computer, and the school districts would be notified. There are certification officers in each of West Virginia's 55 counties, and they "work closely with school districts all year long," according to state officials. Superintendents would stand to lose both accreditation and state aid if the out-of-field assignment were not corrected.

State law in West Virginia reads that teachers must hold "a valid license in the endorsement area and grade level in which the instruction is being offered." Thirty hours of academic preparation are required for mathematics, 36 hours in most other subjects, and 48 in social studies. Fifty-three hours of nonpedagogical preparation are required for elementary teaching. Twenty hours of professional training are required in addition to these, at all levels. The hours must be achieved in an approved program of study at an institution of higher education.

Teacher shortages presently exist in mathematics and science in approximately 30 of West Virginia's 55 counties, according to state officials, and the response to date has been to curtail course offerings. "As colleges raise requirements for entrance, the students will be affected," a state official said.

West Virginia "refuses to allow teachers to teach out-of-field for a minor part of the day because then you are making a judgment that it is good enough for some students," an official said.

Wisconsin

Wisconsin's 435 school districts are audited by computer every year; the audit includes a computer comparison of teacher assignment to certification. In 1983-84, the computer check showed that most districts were assigning teachers in their certification areas. State officials conceded, however, that "If the district chooses to report only proper assignments, the state would never know."

In addition to the computer check, state officials each year visit 50 or 60 randomly selected districts; during these visits, schedules are compared to certification. A state official said, "Some honest errors are discovered; most are in social studies and are due to officials not being aware of what is required for full certification in social studies."

Fully certified secondary school teachers in Wisconsin who are working toward certification in an additional field may be issued one-year special licenses to teach in the uncertified field. The license is renewable upon completion of six semester credits in the uncertified area. In 1983-84, such special licenses were held by 1,035 of Wisconsin's 22,875 secondary teachers. Most of these teachers have a split assignment and teach in the new area for a minor part of the day, according to the state agency.

(A major endorsement in Wisconsin requires 34 semester hours of preparation in the subject field; a minor endorsement requires 22 semester hours.)

Wyoming

In Wyoming, according to state education officials, accreditation teams "hit the field" within 30 days of the start of school each year for the annual accreditation check, which includes examining the match between teacher assignments and certification. They find very few instances of out-of-field teaching, a spokesman said.

In Wyoming, a teacher who wishes to teach a subject in which he or she is not fully certificated, or is asked to do so, may request a "transitional" endorsement, which allows a teacher certificated and otherwise endorsed in one subject to teach another subject in which he or she is not endorsed, provided the teacher meets two-thirds of the requirements for the second subject. (Transitional certificates may not be granted in such areas as vocational education and special education.)

Of Wyoming's 8,000 teachers, 150 are working on transitional endorsements this year, according to a spokesman. Teachers holding transitional endorsements must file annual reports, together with transcripts, showing progress toward the regular endorsement. The transitional endorsement is valid for only three years and is nonrenewable.

If the out-of-field teacher does not have the two-thirds qualification in the second subject, the district may request an exception. Requests to the state board of education for an exception must come from the local school board chairman and the district superintendent, and must be accompanied by evidence supporting the request. An exception allows the teacher to continue teaching out-of-field while being given a "reasonable period of time." typically one year, to make up any deficiencies. According to the state agency, requests for exceptions are frequently denied.

When Policy Becomes Practice: Selected Cases

The following articles by Virginia Robinson, reprinted by kind permission of *Education Times*, describe the practice of teacher misassignment in specific states and schools. They provide immediate witness to the pressures leading administrators to misassign staff, to some of the results in classrooms, and to efforts to regulate and reform such practice.

North Carolina

In 1981, an independent research agency in North Carolina reported on the amount of out-of-field teaching by certificated teachers that was going on in the state.

Surprisingly, the greatest incidence of out-of-field teaching wasn't in mathematics and science, the "shortage" subjects, but in reading, where the researchers found 60.1 percent of teachers out-of-field—meaning they were teaching a subject for which they were not certified, endorsed, or possibly qualified.

After reading came math and science, at 37.3 percent and 30.4 percent, respectively, and then health (23.8 percent of teachers out-of-field), and English (22.5 percent).

When the North Carolina Center for Public Policy Research published its findings, the reactions were swift. There was, first of all, denial, says project director Ran Coble.

"I don't know of anybody out of field," one county superintendent said.

There was also a good deal of argument about the validity of the data collected by the Center: for example, if a teacher certified in history also taught English, the Center counted her as both an English and a history teacher. The superintendent often saw the same person as only "a history teacher," and disputed the Center's count.

What was more relevant, the Center thought, was that to parents of the students in her classes, Ms. X certainly taught both English and history.

There were also disputes about whether certification means qualification, with some superintendents insisting that they knew some teachers were perfectly well able to teach subjects for which they were not certified.

"That raises an interesting question," one researcher said, "Why have certification at all if it doesn't mean a thing as far as qualifications are concerned?"

Another North Carolina researcher described the reaction to the findings about out-of-field teaching this way: "The scenario went like this over a three-year period:
(1) Outright denial of the existence of the problem;
(2) Development by the Center of a data base showing the problem;
(3) Denial of the problem by ignoring the documentation;
(4) Publication of the data by the state's news media, on a district-by-district basis;
(5) Admission of the problem;
(6) Action to address the problem in a minimal way, by watering down certification standards."

Eventually, after considerable press attention and after the researchers presented their findings to the state board, North Carolina took some steps on out-of-field teaching.

In 1983, the state board of education adopted an out-of-field policy which became effective in July of that year. In compliance with this policy, the state agency communicated with all school systems and required them to list all teachers who were teaching out of their certified fields.

It further required that the district request appropriate provisional *certification* for any teachers teaching out-of-field half-time or more, or provisional *endorsement* for teachers teaching out-of-field less than half time.

The state agency then informed each teacher of what he or she must do to become fully certified or endorsed by acquiring additional college hours in the field at the rate of six per year. A state official said that thousands of teachers were processed by the certification office.

As of the 1984-85 school year, the state had not yet implemented another provision of the new policy which requires that the state superintendent publish and make available to the public an annual statewide report of the number of teachers who are teaching subjects in which they do not have certification.

North Carolina's situation isn't unique. According to a survey conducted by the Council for Basic Education of state policies on out-of-field teaching, most states know little about how much of it goes on and appear to care less.

Computers seem to be giving states a handle with which to grab the problem, if indeed they think it is a problem; many states report that they are putting teachers' qualifications, in terms of academic courses studied in college and since, into their computers, to be matched each year against the assignments schools report for their teachers—or in some states, the assignments teachers report for themselves.

Candidly, many of the same states admit that if a school decides to change a teacher's assignment after initial assignments are reported to the state, the computer will never know.

"Our auditors go out, but there are too many school districts and too few auditors," a Pennsylvania official said. In most states, every five years is about the frequency of on-site checks of teacher assignments, and the penalties for infractions are light, usually only a step-down in the school's accreditation rating, with a year or more of forgiveness while the school adjusts its teacher loads.

A national survey found only two states in which a school or district might actually lose money if inappropriate teacher assignments were spotted.

The extent of out-of-field teaching is taken very seriously, however, by colleges of teacher education, who protest that no amount of increasing admissions standards, and no amount of testing of new or working teachers, will avail much, so long as misassignment constitutes "a hole in the pipeline."

Said one education researcher, "Ending out-of-field teaching would be the one most effective, and certainly the cheapest, way to improve the quality of education in the United States."

Utah

The state of Utah, which concedes that it operates "under a very lax system" on out-of-field teaching, or the assignment of teachers certificated in one subject to teach other subjects for which they are not certified, is among a handful of states which compiles statistics to support its position.

Those statistics "make it very easy for anyone to grasp the magnitude of the problem," according to state certification chief Vere McHenry.

Utah issues a general certificate based on a major and minor studied in college, but currently, teachers are not required to teach the subjects for which they are prepared.

According to a report on Status of Teacher Personnel in Utah for 1983-84, for example, the following percentages of teachers with "major" teaching assignments in the subjects listed reported that they had neither a college major nor a college minor in those subjects:

General science: 75.8 percent
Science, earth/space: 82.1 percent
Physical science: 43.1 percent
Biology: 25.1 percent
Mathematics: 28.3 percent
Language arts: 10.8 percent
Foreign language: 14.8 percent
Social studies: 7.9 percent

For teachers with *minor* teaching assignments in the subjects listed who said they had neither majors nor minors in those subjects in college, the figures are as follows:

General science: 78 percent
Science, earth/space: 88.8 percent
Physical science: 64.6 percent
Biology: 49.2 percent
Mathematics: 70.6 percent
Language arts: 29.8 percent
Foreign language: 25.2 percent
Social studies: 24.1 percent

A "major teaching assignment" in Utah is defined as the subject the teacher teaches more than any other. That is complicated, according to research analyst Camille Beckstrom, by the fact that "Some teachers may teach six different subjects. In that case, the teacher may list as his major assignment the class he teaches the first period of the day, and list all other classes as minor assignments."

Under a new state board policy adopted last year and scheduled to go into effect in the 1988-89 school year, "teachers will not be assigned to teach any required course unless they hold a current Utah teaching certificate, have completed an undergraduate or graduate major or minor, have completed a State Board of Education approved inservice program, or have demonstrated competency in the subject area."

Asked how the teacher will "demonstrate competency," McHenry said Utah has in mind a subject matter test.

"We're looking at the subject portions of the NTE [National Teacher Examination], but we may decide to develop our own tests," he said.

Utah state officials also point out that the annual survey of primary and additional teaching assignments has now been changed to reflect credits teachers have earned through inservice or other supplemental training beyond their college majors and minors, and this "equivalency" will be taken into account in new statistics.

McHenry urges that in viewing the Utah misassignment figures, one should be aware of the possibilities of "miscommunication" between the state office and the teachers who were asked to report their assignments and preparation.

Like many other states, Utah believes that it will soon have a much more sophisticated data base for checking assignment against transcripts, thanks to computerization of records.

Meanwhile, "The data are rough," McHenry said.

The state concedes that under the new board policy, "A massive effort will be required to assure that all students in Utah are taught by educators who are competent in the subject areas they are assigned to teach."

In 1983, the legislature "got a little nervous" and appropriated a small amount of money—$300,000—for inservice programs to begin the catching-up process that apparently lies ahead for the state.

McHenry says Utah is eager to avoid "grandparenting" existing misassignments, a prospect he believes can be avoided only by retraining teachers.

"Extensive misassignment has important implications for inservice education," he said.

California

California is one of two states in the country—the other is Oregon—in which teacher certification is handled by an autonomous agency outside the state education agency.

California's Licensing and Professional Development Committee was created by the state General Assembly during the administration of the sometimes-controversial California school chief Max Rafferty, and periodically legislation is introduced to give certification back to the superintendent.

A bill now before the Assembly is opposed by the California Teachers Association, the Association of California School Administrators, and the PTA, but "The school boards are on the fence," according to a state official.

For the past two years, the state coordinator of licensing and professional development, Richard Mastain, and Commission staff have been stumping the state, offering workshops on assignment/misassignment practices. The idea is to acquaint people with California's laws and regulations on out-of-field teaching, but also to get the views of administrators and teachers as to the causes and possible remedies for the problem.

In California, a teacher certificated in one area may be assigned to teach a subject for which he is not certificated if he has 9 upper-level (junior or senior year) or 18 total college hours in the second field, according to a spokesman for the state's Commission on Teacher Credentialing. This decision is made at the local level and need not be reported to the state; the teacher must consent to the placement.

In order to assign a certificated teacher to teach in a field for which he does *not* have 9 upper-level or 18 total course hours, the school district is supposed to request from the state a "limited emergency teaching credential" good for one year and renewable for two additional years if the teacher completes six semester hours of work a year toward appropriate certification. The district must submit a signed statement of its need to make the out-of-field assignment; an example might be the need to cover a "left-over course."

That this system may not be widely understood is indicated, Mastain told *Education Times*, by the fact that there have been more inquiries about assignment in the past year than in the 20 previous years, sparked by the workshop session.

California teachers would seem to have special reason to understand whether they are misassigned or not, since county offices which issue pay warrants are supposed to base them on appropriate certification.

Mastain admits that the system used to monitor assignments is sometimes "inoperative or nonfunctional," however; the Commission said in a report prepared last July that breakdowns seem to happen most often between a school district's central office and individual schools.

The school site administrator makes a change in the assignment and fails to notify the central office. The central office, in turn, is not able to notify the county office. The county office continues to issue the monthly pay warrant."

Superintendents who want to avoid perjury should presumably be concerned, also; at the end of each school year, superintendents are required to certify, under penalty of perjury, that assignments have been as reported throughout the year.

But despite the presence of what seem like fairly rigorous penalties for noncompliance, misassignment occurs in California, Mastain concedes. Some of the reasons the Commission heard in its workshops included:

- ***A general secondary credential** issued up to 1964 authorized the holder to teach any subject in the secondary school, with the exception of a few categorically funded courses such as driver education. When a need arose for someone to teach that "extra" class in mathematics, or speech, or whatever, the administrator could turn to one of the holders of a general secondary credential and ask him/her to teach the class. The holder of the general credential may have been legally authorized to teach the math or speech class, but was not necessarily qualified to do so on the basis of subject matter preparation. As the population of general credential holders retires, administrators are losing this flexibility, which isn't matched by holders of single subject credentials.*
- ***Declining enrollment** leads to dismissal of teachers and reassignment of others. The latter often leads to misassignment. Lack of knowledge about the legal options for reassignment, on the part of both the assignor and the assignee, is the most common source of this problem.*
- ***New high school graduation standards** require reallocation of human resources. Beginning with the 1986-87 school year, no California pupil will receive a diploma without three courses in English, two in mathematics, two in science, three in social studies, one in fine arts or foreign language, and two in physical education. Participants in the Commission's workshops said candidly the standards will increase the incidence of misassignment, apparently unless "misassignment" is redefined by making the options more liberal.*
- ***Lack of knowledge** on the part of assignors, generally school principals, and assignees, generally teachers, about the authorization of specific credentials. One school district that did a study to determine whether teachers knew what their credentials authorized them to teach found that teachers thought they had much broader authorizations than was actually the case. On further inquiry, the district found that teachers listed the courses they had been assigned to previously, assuming that they had been assigned within their legal authorization.*

Available sanctions are either not stringent enough or are not being implemented. *The workshops expressed a strong sentiment that penalties for misassignment should be imposed on both the assignor and the assignee. No one at the workshops could remember any district experiencing loss of A.D.A. for misassignment.*

Editor's note: Forty-two states currently threaten loss of A.D.A. for misassignment. Few can cite any instance in which this has occurred.

• ***Mismatch between credential structure and middle schools.*** *The single-subject credential is designed for a departmentalized situation, and the multiple-subject credential for a self-contained classroom. The middle school falls somewhere between the two, especially if it includes grades five and six. The Commission has only a partial solution—adding a supplementary authorization to a multiple-subject credential.*

The Commission says the subject "has been discussed on many occasions."

Oregon

Oregon is one state in which gross or continued misassignment of teachers can, and often does, call down fiscal penalties on a school district.

There were 47 such cases last year, according to state certification chief Richard Jones, and school districts have been known to lose as much as $78,000 in state aid. The lightest penalty Jones can remember was $200. The rule of thumb is that the forfeit is "not to exceed the salary of the person misassigned."

In Oregon, state administrative rules define "misassignment" as "Assignment of a certified person to a position for which he or she does not hold the endorsement required by Rules for Certification." According to the regulations, all misassignments are supposed to be temporary and due to an emergency.

If the misassignment is for two periods of the day or less, the state has no regulations controlling it, and the teacher is not required to have any preparation in the noncertificated area.

But the state also allows schools to assign teachers outside their certified areas for *more* than two periods a day, if an emergency or provisional certificate is obtained for the out-of-field assignment and the teacher begins working toward full certification in the subject area at the rate of nine quarter-hours per year.

If the misassignment goes on for a second year, the teacher is required to obtain an "emergency certificate" and must begin work toward full certification in the subject area at the rate of nine quarter-hours a year.

But here too there is an exception. "If," say the rules, "the Executive Secretary [of the Teacher Standards and Practices Commission] deems that the demographic characteristics of the district, the size of the student body, the number of certified personnel and the educational practices of the school warrant, an educator may be permitted to continue in a misassignment without additional preparation."

"We have a hell of a lot of schools with only three teachers," Jones points out in explanation.

Richard Jones is the executive secretary of Oregon's Teacher Standards and Practices Commission. Oregon is one of two states with an autonomous certification body; the Commission was legislatively separated from the state department in 1973.

"The legislature has arranged that 14 of the 17 members of the Commission are educators, eight of them classroom teachers," Jones noted, comparing it with California's equally independent commission which has fewer education members and more public representatives.

For the next two years in Oregon, *all* out-of-field teaching, legal or not, will be reported, in a trial to see how much misassignment is actually going on, Jones said.

In a review of teacher assignment schedules from a sampling of schools, Jones found a variety of reasons for out-of-field teaching, including "administrative convenience, sloppiness, or the principal wants a teacher to have sixth or seventh period free for coaching."

He also expresses empathy for the teacher who feels burned out in second grade and would like a shot at sixth, and feels she probably should be allowed the chance, provided she can "demonstrate competence."

Demonstrated competence, in one form or another, may be one of the alternatives to current certification requirements to emerge from an ongoing study by the Certification Commission.

Meanwhile, a preliminary report of 1984 misassignments for which approval was requested by Oregon school systems shows a 100-to-1 ratio of Commission approvals to disapprovals. Among the assignments approved for one semester or one year, or until the teacher receives endorsement in the uncertified subject were:

• a teacher with standard physical education and health certificate, to one period of counseling and one of art;
• an art teacher, to three periods of social studies, two periods of English, and one period of Spanish;
• a teacher with a five-year regular music certificate, to three periods of English;
• a standard language arts teacher, to three periods of geography;
• a basic music teacher, to three periods of grade 8 language arts; and
• a basic language arts teacher, to four periods of Introduction to Algebra.

Mississippi

An Education Reform Act passed by the state legislature in 1982 required the Mississippi State Department of Education to conduct a study of the extent to which teachers were teaching out of their fields of certification. The legislature also wanted to know what conditions promote the practice of out-of-field teaching, and what solutions there are to the problem.

In a study completed in June 1984, the Office of Teacher Certification of the state agency surveyed 40 randomly selected schools in Mississippi concerning their teacher assignments during the 1983-84 school year.

In framing its questions to school administrators, the study specified that data was sought on *all* out-of-certification teaching, though it is perfectly legal in Mississippi for a teacher to teach as many as two periods a day in an uncertified field, provided she/he has at least 12 semester hours of preparation in the uncertified subject (changed this year to 18 hours).

On the basis of reports from the 40 schools, the certification office extrapolated that 1,319 high school teachers in Mississippi were assigned out of their field of certification for some part of the school day in 1983-84.

The study found that:

- *Most out-of-field teaching was not illegal, since the teachers had at least 12 semester hours of preparation in the misassigned fields.*
- *The amount of out-of-field teaching is three times greater in secondary schools having 20 or fewer teachers than in those with 40 or more teachers.*
- *Out-of-field teaching was most common in the social sciences, followed by general science, mathematics, and English, in that order.*

According to the survey, teachers were assigned out of their fields for the following reasons:

- *Overload (meaning a school has too many sections of the subject for one teacher, but not enough for two)—39 percent;*
- *Offering the maximum possible Carnegie units (the school desires to provide a wide range of courses but does not have fully certificated teachers for all of them)—24 percent;*
- *Certified teachers are not available for employment—12 percent;*
- *Underload (meaning a specialized teacher is on the faculty but does not have a full class load; other subjects are assigned to fill the teacher's day)—11 percent;*
- *Administrative decision—8 percent;*
- *Extracurricular activities scheduled during the school day—5 percent.*

Fifty-five percent of the school administrators who responded to the Mississippi survey suggested that the best remedy for out-of-field teaching would be to require all secondary teachers to hold dual certification.

Eighteen percent recommended changing certification requirements; 15 percent suggested teachers should be retrained in needed areas; 8 percent voted for transporting students to other schools for special classes; 2 percent recommended flexible scheduling; and 1 percent suggested consolidation. In a step toward dual certification, Mississippi will now require every student graduating from a program of teacher education to have completed a minor consisting of two-third of the hours required for a major.

Washington

Nearly half of the middle school classes in Washington State were covered by teachers "without preparation" in subjects they were teaching during the 1983-1984 school year, according to a report released in May 1984 by the Washington State education agency.

Forty-two percent of the 2,988 middle school class assignments examined in a survey of 31 school districts were taught by teachers who did not hold a major, a minor, or 20 quarter hours of academic preparation in the subject being taught. These teachers were considered by the report to be teaching "without preparation."

In addition, the report found that 28 percent of the 3,782 high school class assignments were covered by teachers without preparation.

"Converted to student class hours, this means that approximately 21,160 student class hours were taught by teachers with fewer than 20 quarter hours of preparation in the subject," the report concluded.

At the elementary level, 14 percent of assignments were covered by teachers without preparation. The report made no effort to distinguish between misassignments involving self-contained elementary classrooms and those that involved inadequately prepared special teachers of elementary subjects such as music, art, physical education, or remedial reading or mathematics.

In preparing the report, "Teacher Assignment Study in Relation to Subject Matter Preparation 1983-84," Washington State education agency researchers visited 10 percent of the state's 299 school districts and collected assignment and subject matter preparation data from district certification files for 2,7865 of the state's 35,937 teachers.

Middle School/Junior High

For the middle school/junior high school level, which had the largest number of classes covered by teachers who did not have a major, minor or 20 quarter hours of credit in the subject being taught, the following percentages of class assignments were covered by teachers "without preparation":

- Health—72 percent
- English—61 percent
- Math—48 percent
- Spanish—38 percent
- Physical education—25 percent
- Special education—19 percent
- Art—18 percent
- Industrial Arts—14 percent
- Music—10 percent
- Home economics—9 percent

High School

At the senior high school level, the percentages of classes taught by teachers who did not have a major, a minor, or 20 quarter hours of preparation were as follows:

- Geography—92 percent
- Health—70 percent
- Physics—43 percent
- Chemistry—43 percent
- Math—36 percent
- History—32 percent
- English—30 percent
- Spanish—25 percent
- Physical education—23 percent
- Biology—22 percent
- Special education—21 percent
- Art—20 percent
- Business education—19 percent
- French—14 percent
- Agriculture—11 percent
- Industrial arts—6 percent
- Library—4 percent

The study noted that assignments in "specialized areas such as music, home economics and industrial arts were more often covered by teachers having related academic preparation than were assignments in English, social studies, math, science and health."

Reading

According to the report, reading classes at all three levels—elementary, middle school, and high school—were rarely taught by prepared teachers.

In the elementary grades, 73 percent of reading classes were covered by teachers without preparation; in the middle school/junior high, the figure was 67 percent; and in high school, 71 percent of the reading assignments were covered by teachers without even as much as 20 quarter hours of training in the subject.

According to the report, teachers with general elementary preparation often became teachers of separate reading classes, though they had few hours of credit in the teaching of reading.

The Unendorsed

It is important to note that in Washington State, all the "unprepared" teacher assignments may have been perfectly legal, and most would not have been reported on any official state or local records.

That is because 82 percent of all Washington teachers hold "continuing level" certificates, which state simply that the holder "should be" assigned to recommended areas and levels, or to areas and levels in which he or she has "demonstrated competency during professional services."

Five percent of the state's teachers hold "initial certificates" which do specify a subject area or specialization endorsement, but there are substantial exceptions" even here, according to state officials.

State board of education rules state that "when it is considered justifiable, the superintendent of public instruction, if requested by the school district superintendent, who will provide evidence of the need for such assignment, may authorize initially certified teachers to serve at different grade levels or in different subject matter fields from those recommended."

Another 13 percent of the teachers in the state hold provisional certificates valid for grades K-12 which require only that an individual serve in the "recommended areas" for "the first 90 days of teaching."

Under new regulations adopted by the state board last year, continuing certificates issued after July 1, 1986, will carry endorsements restricting "professional practice" to "areas in which an endorsement has been received."

Endorsements will be based on the recommendation of the teacher education institution which prepared the teacher.

However, the 80 percent of Washington's 35,937 teachers who currently hold continuing certificates without endorsements will not be affected in any way by the new rule, and a state agency official said the state will continue to "trust the good judgment" of local superintendents to make appropriate assignments.

West Virginia

In explaining why they make exceptions to their certification rules, state officials offered a variety of administrative dilemmas faced by school administrators, including "leftover courses" (a single course the district wants to or has to offer but for which it can't afford to hire an additional teacher), the need to free up teachers for coaching or other extracurricular activities, inability to secure qualified teachers in shortage areas such as mathematics, or science, collectively bargained seniority rules that call for retention of senior teachers whatever their subjects, or mandates for new courses by state legislatures and boards.

"If you take that bait, you lose the whole game," says the certification director in one state which has been bucking the "administrative flexibility" trends for years, recently with support from the state's supreme court.

West Virginia Director of Education Personnel Development Robert Gabrys sees only one way that an administrator could go along with assigning teachers outside their areas of competence.

"You have to lose your learned orientation," he says.

Assuming that schools have instructional objectives, the only question that an administrator can legitimately ask, Gabrys believes, is: "If that is what children are to learn, what level of knowledge must the teacher have?"

Recently, Gabrys and his staff were delighted by the findings of a learning objectives advisory panel which concluded that teachers of mathematics in grades five through eight—West Virginia's "middle childhood"—must know calculus.

"Not that they will *teach* calculus in those grades; they simply have to know it in order to understand how to prepare students to learn it later."

Upsetting yet another excuse frequently offered for misassignment of teachers—the difficulty of staffing middle or junior high schools—West Virginia has set out three levels of certification—early childhood (K through four); middle childhood (five through eight) and adolescent education (grades nine through 12).

"Between 1977 and 1981, we ran 2,300 people through middle childhood authorization programs," Gabrys said. "You do not teach the middle grades in West Virginia without appropriate certification."

The middle childhood classification is not a matter of buildings, he stresses; if an elementary school has grades one through eight in one building, the fifth through eighth grades are taught by teachers with middle childhood qualifications, not by elementary teachers.

West Virginia's uncompromising attitude toward out-of-field teaching preceded a state court ruling in a school finance case which specified in detail many of the operations of the state's education system, but Gabrys concedes that the court's support of state education agency objectives has been invaluable.

Payment of teacher salaries is handled by the state under the court order, for example, and county administrators are required to submit claims for salaries on the basis of teacher assignments. "To make a false statement about teacher assignment would constitute an illegal use of state funds," he points out.

His office prepares an "out-of-field report" every year, based on a computer cross-check of what each teacher in the state is teaching every period of the day. "If the teacher is reported as teaching chemistry in second period, the computer searches whether that teacher has a chemistry endorsement and kicks out any discrepancies. If you have a person out of field, that means an illegal assignment."

Judge Arthur Recht, who wrote the court's order, also made one point which has infinitely strengthened the state's hand in enforcing its out-of-field rules, Gabrys said.

"West Virginia does not have 55 school systems," Judge Recht wrote, "The state has 55 school districts participating in one school system."

Given that orientation, it is not possible for a school superintendent to say in defense of an unauthorized assignment, "This teacher is perfectly well qualified to teach *our* curriculum in mathematics."

Under state board regulations that go into effect July 1, West Virginia is moving entirely away from credit hours as a basis for certification and to a "program approach" which includes completion of a structured academic program and passage of a content specialization examination that is criterion-referenced to the public school curriculum.

Gabrys agrees that he is astounded by "the number of people who don't know what they are qualified to teach," a problem his office attempts to address by making recertification the entire responsibility of the individual teacher, thereby forcefully bringing to the teacher's attention her level of certification and the qualifications she must present for renewal.

Gabrys also has another suggestion. "Have your certificate framed and hang it in your classroom," he tells teachers—"like doctors and dentists."

"Seriously, that might be the best thing we could do to make teaching a profession," he reflects.

"Can you imagine the reaction of a parent who comes for a conference, reads the certificate while she's waiting, and discovers her child's mathematics teacher is certified by the state to teach history?"

Washington (Revisited)

Aware that some teachers were being assigned outside their fields of certification after schools in Washington State laid teachers off in a general retrenchment two years ago, a University of Washington education professor and a doctoral student set out to find what was happening in a major urban school system in the state.

Hundreds of hours and thousands of records later, Assistant Professor Nathalie Gehrke and doctoral student Rosemary Sheffield concluded that what they were seeing in 1983, at a time of declining enrollment, was not much different from what had been happening eight years earlier, in 1975, the year they chose for comparison.

Their inquiry raised some questions not usually asked about teacher reassignments, including: Is there a pattern to reassignments? If so, what is its basis? Are certain curriculum areas more likely than others to receive misassigned teachers? If so, what does this mean for student learning in those areas?

Because no districtwide picture existed to show the extent of reassignments over time, Gehrke and Sheffield decided to match class schedules for teachers at eight of the district's high schools with the preparation of those teachers, as measured by an academic major or minor, in two years, 1975 and 1983.

The percentages of classes taught by teachers who held a major, a minor, or neither were calculated for each content area. Those percentages, and changes in the percentages, were displayed for science, mathematics, and English—chosen because those subjects are of particular concern to advocates of increased academic requirements—and for other subjects included as a basis for comparison and for a balanced look at the curriculum.

Over the period of enrollment decline, assignment of teachers according to their major preparation became less likely, though some subjects continued to be taught by fully qualified teachers. Interestingly, these were not academic or core curriculum subjects: instead, the researchers found that the subjects most likely to be taught by well prepared teachers were music and home economics, followed by business and industrial arts.

This pattern persisted even though the number of classes offered in those fields declined from 1975 to 1983. When the number of classes was reduced, teachers with majors were consistently assigned to teach the remaining sections.

Science and Mathematics

When Gehrke and Sheffield turned their attention to the fields in which teacher shortages are generally believed to be most acute—science and mathematics—they found that of all the sciences, biology ranked highest in percentage of classes taught by majors in both 1975 and 1983.

In both years, about half of the district's chemistry classes were taught by nonmajors; there was considerable reliance on teachers with minors in chemistry, and that increased a little in 1983.

Physics was a worse case: 90 percent of the district's high school physics classes (14 of 15) were taught in 1983 by teachers who did not hold academic majors in the subject. Four classes were taught by persons who had physics minors; the other 10 teachers were unqualified.

The general science area is a little harder to explain, the researchers said. Washington State includes general science as a certification area, but most science majors today are taken in specialized fields such as biology or chemistry. It could be assumed that teachers with any specific science major would be qualified to teach general science, but it was also noted that six of the 36 general science classes were taught by English and sociology majors.

The researchers found a remarkable increase in the number of general science courses offered from 1975 (19) to 1983 (36), which they said "does appear to add fuel to arguments about the declining demand for rigorous study in the sciences."

From 1975 to 1983 there was also a sizable increase in the number of mathematics classes offered (from 211 to 262). At the same time, a larger percentage of the classes (15 percent) were taught in 1983 by teachers who had neither majors nor minors in mathematics.

"What are the benefits," Gehrke and Sheffield wondered, "of offering more classes, or perhaps even requiring more classes of students, if those classes will be taught by persons who do not even hold a minor in the content area?"

The researchers were prepared to find school districts relying on noncertified teachers, or teachers with only minors in the subjects, in math and science in 1983, "in light of the declared teacher shortages." What they did not expect, however, was the extent to which the district was already relying on nonmajors and even nonminors in 1975, when one-half of the physics and one-half of the chemistry classes were taught by such teachers.

"The scene was already quite dismal prior to decline," the researchers observed.

But more surprises were ahead. In subjects not generally considered shortage areas—language arts and history—things were grim also, in both 1975 and 1983.

Language Arts and Social Studies

In 1975, the school district was relying heavily on English minors to teach English classes, and that reliance had increased by 1983. But more disturbing was the fact that in 1983, one-fifth of the 266 English classes were taught by teachers who lacked even a minor in the subject.

"The status of drama and journalism was even worse," Gehrke and Sheffield said.

History, the representative discipline from the social studies, presented a similar picture. Not quite 60 percent of the classes offered in 1975 were taught by history majors; by 1983, the percentage had declined to 49 percent, with a commensurate increase in the number of classes taught by persons with history minors. That left some 30 percent of history classes to be taught by teachers without either major or minor preparation in the subject, about the same proportion as in 1975.

"These inappropriate assignments existed in spite of the fact that language arts and social studies have been the subjects with the greatest excess of certified job applicants. The figures suggest that during the period of declining enrollment and teacher reassignments in the 1980s, and in fact even before it, language arts and history classes were the placements for teachers who needed to be partly or fully reassigned outside their areas of certified preparation.

Explaining the Gains and Losses

Surprisingly, Gehrke and Sheffield discovered, some content areas came closer to achieving 100 percent class coverage by teachers with majors in the subject being taught, while others grew farther away from that goal between 1975 and 1983.

Mathematics and science, as expected, showed considerable increase in the use of unqualified teachers, but similar findings for language arts and history were startling. Vocational education and the fine arts looked surprisingly good.

In this district, then, students choosing classes in art or vocational education were far more likely to experience qualified teaching than were students who took courses in language arts, history, science and mathematics.

"What this means," said Gehrke and Sheffield, "is that the very core of the curriculum was being adversely affected, while the specialized offerings were not. Courses in those specialized areas may have been reduced in number, but those that were offered were taught by qualified people.

What accounts for the considerable and apparently growing differences in assignment practices between content areas?

One possible explanation, the researchers speculated, may be the principle of "observability."

If administrators are faced with having to reassign teachers outside their areas of preparation, but want to maintain the appearance of quality, they are likely to avoid assigning teachers to subjects where an observable skill is required.

The skills to utilize the special materials of art and music can't be picked up the day before class begins. Not only would the teacher's lack of competence be obvious to students and their parents, but there would be risk of error, waste, and accident, making the problem one not only of pedagogy but also of economics and safety.

The principal, then, must look to the core academic courses, where the absence of expertise is less visible to outsiders. A good textbook and supplementary materials can sometimes mask a teacher's inadequacy, if the teacher is a fast reader and can stay the proverbial "one page ahead" of the students and somehow muddle through the year.

Teachers can be placed in such courses, particularly the introductory and lower-track classes, without harm to limb and property.

But other misassignments, particularly those *among* core curriculum areas, were more puzzling, and tempted the researchers to see an anti-intellectual bias at work in the district.

"The assumption was that the core content areas could be taught by almost anyone, that delivery style and the ability to get along with youngsters was more important than subject knowledge. When we queried representative high school principals in the district about their assignment practices, they firmly expressed the belief that 'a good teacher' could teach anything."

Gehrke and Sheffield quote Gilbert Highet as saying that "One cannot understand even the rudiments of an important subject without knowing its higher levels—at least not well enough to teach it," and "A teacher must believe in the value and interest of his subject as a doctor believes in health."

"If both knowledge and love of subject are increasingly absent among teachers, not because they have no knowledge or love of their subject but because they have been assigned to teach in areas other than those they have chosen, we must rethink the problem of quality instruction."

"It may lie not in teacher preparation, as critics have claimed, but in the minds of the administrators who make inappropriate assignments, in their preparation for curriculum administration, and in the social contexts in which they operate."

James Bryant Conant: A View of Teacher Misassignment, in 1963

In 1961, James Conant was asked to study the education of elementary and secondary school teachers.

He concluded in *The Education of American Teachers*, published in 1963, that none of the then-current or -proposed methods of certifying teachers—by courses taken, by examination, or by completion of an approved program of study—was satisfactory, and he came up with the Conant alternative, which said a state should grant certification to a person who:

- *holds a baccalaureate degree from a legitimate college or university;*
- *has successfully performed as a student teacher under the direction of college and public school personnel "in whom the state department has confidence"; and*

• *holds a specially endorsed teaching certificate from a college or university which, in issuing the official document, attests that the institution as a whole considers the person adequately prepared to teach in a designated field and grade level.*

If his recommendations were adopted and implemented, Conant said, "state education authorities should give top priority to the development of regulations insuring that a teacher will be assigned only to those teaching duties for which he is specifically prepared, and should enforce these regulations rigorously."

Under his recommendations, Conant wrote, "the state will have in its hands documents in which the college or university president attests that the teacher has, in the college's judgment, been prepared to teach specific subjects at a specific grade level. It should then be possible for the state department to check actual teaching assignments to make certain that they correspond to the attested preparation."

"We have already noted," Conant wrote, "how widespread are present provisions that facilitate the misuse of teachers, and I have called these the most objectionable of end runs. Moreover, even the present inadequate controls are rarely enforced, though theoretically the state has the power to enforce them."

"As we have seen, in every state capital there are organized groups representing teachers, school administrators, school board members, and others interested in education. These groups are, appropriately, active in endeavoring to influence state educational policy on such matters as school finance, school district organization, teacher certification, and teacher welfare. In many states they supply valuable information and advice to state education officials. Their power might well be used on the matter of teaching assignment."

The No-Man's-Land of Middle School Teacher Assignment

Middle schools and junior high schools are "no-man's-land" when it comes to out-of-field assignment of teachers.

The practice of assigning teachers who are certified in one subject or grade level to teach a subject or level for which they are not certified seems to be encouraged by state laws and regulations that allow flexibility in the staffing of middle schools.

For example, in many—perhaps most—states, middle schools and junior highs can employ teachers who have either elementary or high school certification.

This mix-and-match can result in wide disparities in the academic preparation of teachers assigned to the same subject in a departmentalized middle school—the teacher's background may range from little or none, if she holds a general elementary certificate, to full academic credentials in the case of a certified high school teacher.

In Illinois, as an instance, the elementary certificate, which is valid for grades K-9, requires 7 hours of science and 5 hours of math. The secondary science or mathematics certificate, valid for grades 6-12, requires a specialization of 32 hours. In the overlap area, the qualifications of teachers teaching science or mathematics potentially will vary.

The elementary and secondary overlap pattern holds in Massachusetts, Ohio, Tennessee and Washington State, and with a slight variation in New Mexico, where the elementary certificate is valid for all subjects in the seventh and eighth grades except that an elementary-certified teacher assigned to departmentalized classrooms in physical education, health, music and art must be endorsed for the assignment.

In Iowa, regulations allow a certified secondary school teacher to teach any subject in the seventh or eighth grades (except art, music, and physical education) without specific endorsement.

Even when states move, as Kentucky recently did, to tough new accreditation standards which include strict requirements for in-field assignment of teachers, there is often a grandparenting loophole allowing teachers who were teaching out-of-field in the seventh or eighth grades to continue without endorsement.

In North Carolina, new in-field regulations adopted in 1983 treated the middle grades as a special case, adding as a clear certification for middle school any area in which the teacher had 18 hours of academic preparation, if the teacher had ever taught or was currently teaching in the middle grades.

An Illinois in-field regulation grandparents all teachers who were employed in a departmentalized position prior to September 1973, by exempting them from the requirement that teachers of junior high and departmentalized upper elementary grades hold 18 hours in the area of their major teaching assignment.

In Massachusetts, a state secondary provisional certificate is valid for six years for teaching all subjects in the seventh and eighth grades.

A Nebraska certificate is by statute legally valid for teaching K-12 in all subjects, regardless of the area of endorsement on the certificate.

Washington State initial certificates specify the recommended assignment areas by subject and grade level, but continuing level certificates authorizing service in grades K-12 and are endorsed for recommended subject matter and teaching specialties only if the candidate requests it.

Oregon regulations allow a teacher with an elementary credential (K-9) to teach any subject in the curriculum, except that a teacher assigned to teach 50 percent or more of his or her time in art, educational media, foreign language, health, home economics, industrial arts, music, physical education, or reading—and, after January 1987, mathematics but not science—must be appropriately certified.

Although state rules that allow middle schools to draw teachers from both elementary and secondary levels appear to allow "unprepared" teaching in middle school and junior high, most of the teachers are not regarded by the states as "out-of-field," and would not show up as out-of-field in any statistics.

In addition, of course, middle schools have the same option as other schools in a great many states to "misassign" a teacher to a field for which he or she is not certified, so long as the out-of-field assignment does not go on for more than an allowed one or two periods a day, or the teacher's "minority time."

In response to questions from *Education Times*, some state certification administrators conceded that they are concerned about the effects of inadequate teacher qualifications on middle and junior high school student achievement, and particularly on students' enthusiasm for difficult subjects such as science and mathematics which may be badly or unexcitingly taught at this level if teachers are inadequate.

According to others, however, the patience of an experienced elementary teacher with difficult adolescents can more than outweigh a lack of subject matter competence.